

COLUMBIA GAS
Development



VIA AIRBORNE EXPRESS

December 28, 1992

RECEIVED

DEC 29 1992

DIVISION OF
OIL GAS & MINING

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

**Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T258-R19E
Grand County, Utah**

Gentlemen:

Please find enclosed the Application for Permit to drill and associated information for the above-referenced well.

Also enclosed is a copy of the analysis of the blooie pit at the Kane Springs Federal #10-1 location.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

Wendy G. DesOrmeaux
Regulatory Coordinator

WGD
Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1A. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

B. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER

SINGLE
ZONE ☐

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Columbia Gas Development Corporation

3. ADDRESS OF OPERATOR

P.O. Box 1350, Houston, TX 77251-1350

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface 934' FNL & 1678' FEL

At proposed prod. zone

BHL: 950' FEL & 1900' FSL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

20 air miles W of Moab

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT. 386'
(Also to nearest drlg. unit line, if any)

16. NO. OF ACRES IN LEASE

1,560

17. NO. OF ACRES ASSIGNED

TO THIS WELL 640

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT. 2900'

19. PROPOSED DEPTH

9850'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5821.2' Gr.

22. APPROX. DATE WORK WILL START*

1st Quarter, 1993

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2	13-3/8"	61	630'	535 cu. ft. cement
12-1/4	9-5/8"	40	4550'	564 cu. ft. cmt.
8-3/4	7"	29	7850	634 cu. ft.
6"	4-1/2"	13.5	9850'	Pkr @ 7610'

SEE ATTACHED FOR SUPPLEMENTAL INFO:

- 1) Eight Point Drilling Program
- 2) Multi-Point Surface Use Plan
- 3) BOPE Diagram
- 4) Certified surveyor's plat, cut & fill sheet, area top
- 5) Certification

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DIVISION OF
OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Wendy G. DesCarmes

TITLE

Regulatory APPROVED BY THE STATE

(This space for Federal or State office use)

OF UTAH DIVISION OF
OIL, GAS, AND MINING

PERMIT NO.

13-019-3133-1

APPROVAL DATE

DATE: 3-8-93

BY: *John Matthews*

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

WELL SPACING: 649-2-3

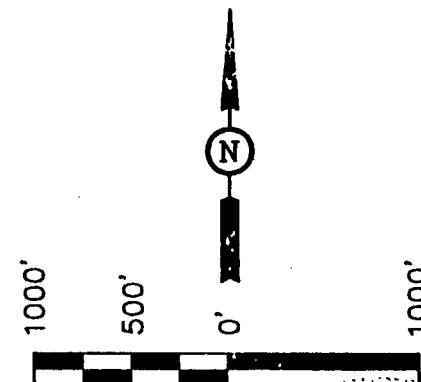
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*See Instructions On Reverse Side

N0°02'W - 80.00 (G.L.O.)

Well location, KANE SPRINGS FEDERAL #25-19-34-1, located as shown in the NW 1/4 NE 1/4 of Section 34, T25S, R19E, S.L.B.&M. Grand County, Utah.

THE KNOLL TRIANGULATION STATION LOCATED IN THE NW 1/4 SE 1/4 OF SECTION 11, T26S, R19E, S.L.B. & M. TAKEN FROM THE KNOLL QUADRANGLE, UTAH, GRAND COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6316 FEET.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE
BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 5709
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(801) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 11-23-92	DATE DRAWN: 11-25-92
PARTY J.T.K. T.G. J.L.G.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE COLUMBIA GAS DEVELOPMENT CORP	

LEGEND:

L = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

N89°58'W - 79.84 (G.L.O.)

KANE SPRINGS FEDERAL

#25-19-34-1

Elev. Ungraded Ground - 5824'

-34

**1981 Alum.
Cap**

NO°01'W - 40.00 (G.L.O.)

WEST - 80.00 (G.L.O.)

1981 Brass
Cap ▲

NO°01'W - G.L.O. (Basis of Bearings)
2639.99' - (Measured)

934' (Comp.)

$$\frac{S60^{\circ}55'20''W}{1919.3'}$$

1678

Б.А.Л.

CONDITIONS OF APPROVAL
FOR THE SURFACE USE PROGRAM OF THE
APPLICATION FOR PERMIT TO DRILL

COMPANY:	Columbia Gas Development Corporation
WELL NAME & NUMBER:	Kane Springs Federal #25-19-34-1
LEASE NO.:	U-53624
LOCATION:	934' FNL & 1678' FEL Sec. 34 - T25S - R19E Grand County, Utah
SURFACE OWNERSHIP:	Bureau of Land Management

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NOTIFICATION REQUIREMENTS

Notify Elmer Duncan of the Grand Resource Area, at (801)259-8193 for the following:

- ♦ 2 days prior to commencement of dirt work, construction or reclamation;
- ♦ 1 day prior to spudding;
- ♦ 50 feet prior to reaching surface and intermediate casing depths;
- ♦ 3 hours prior to testing BOP's;
- ♦ 12 hours prior to reaching kickoff point depth;
- ♦ 1 day prior to pressure testing of surface casing.
- ♦ 24 hours prior to closing the reserve pit.

Notify the Moab District Office, Branch of Fluid Minerals at (801)259-6111 for the following:

No well abandonment operations will be commenced without the prior approval of the Assistant District Manager, Minerals Division. In the case of newly drilled dry holes, and in emergency situations, verbal approval can be obtained by calling the following individual:

Eric Jones, Petroleum Engineer	Office: (801)259-6111
	Home: (801)259-2214

If unable to reach the above individual including weekends, holidays or after hours please call the following:

Lynn Jackson,	
Chief, Branch of Fluid Minerals	Office: (801)259-6111
	Home: (801)259-7990

24 HOURS ADVANCE NOTICE IS REQUIRED FOR ALL ABANDONMENTS

ONSITE DATE: 11/23/92

THIRTEEN POINT SURFACE USE PROGRAM

MULTIPOINT REQUIREMENTS TO ACCOMPANY APD

1. EXISTING ROADS

- A. Existing road and location in relation to location submitted on Exhibit "A".
- B. From Moab, Utah:

Travel North on 191 for approx. 10.9 miles. Turn left onto Highway 313 & travel approx. 11 miles. Turn left onto access road, go 0.1 to wellsite.
- C. Description of roads in area: Hwy 191 and 313 are all weather asphalt. The access road will be constructed of native material.

2. PLANNED ACCESS ROADS

- A. Length:

Proposed access will be newly constructed road approximately 0.1 miles in length.
- B. Width:

For drilling operations, maximum total width of the dirt road will be 35 feet (will include travel surface, spoil, and ditches).

For production operations, roads will be upgraded as specified in the BLM's Surface Operating standards for Oil and Gas Exploration and Development Operations.
- C. Maximum Grades:

At grade.
- D. Turnouts:

As needed.

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E. Drainage Design:

For drilling operations, flat blading of native material. For production operations, surface will be upgraded to twenty foot wide travel surface, crowned, with ditches (as per BLM's Surface Operating Standards for Oil and Gas Exploration and Development) and continuously maintained. Culverts will be installed at all drainages where needed.

F. Location and size of culverts and/or bridges, and brief description of any major cuts and fills:

Culverts may be needed at turnoff from Long Canyon Road to two track jeep road. Size of culverts will be coordinated with the appropriate County and BLM representatives.

G. Surface Material Source:

For drilling operations, native materials. For production operations, as per BLM's Surface Operating Standards for Oil and Gas Exploration and Development.

H. Necessary gates, cattleguards, or fence cuts and/or modification to existing facilities:

None. All heavy vehicle travel will be confined to existing access road.

I. Notification will be given to the Bureau of Land Management, District Office, with sufficient lead time, prior to the upgrade of access road and drill pad.

Access and location under the jurisdiction of the Bureau of Land Management.

J. Columbia Gas Development Corporation will provide Dirt Contractor with necessary maps, pad and road construction plans.

3. LOCATION OF EXISTING WELLS

Within a one mile radius of this proposed well there is one producing well:

Columbia Gas Development Corporation's
Kane Springs Federal #27-1

The following non-producing oil wells are within a one mile radius of the site:

Columbia Gas Development Corporation's
Kane Springs Federal #28-1 (Temp. Abandoned)

Ensearch's
Mineral Canyon Federal #1-3 (Dry Hole)

Calvert Western's
Big Flat #6 (Dry Hole)

Pure's
Big Flat #5 (Plugged & Abandoned)

Huskey/Supron's
Well # 1-R (Dry Hole)

Within a one mile radius of this proposed well there are no known:

Water wells, disposal wells, injection wells,
monitoring wells or drilling wells.

4. LOCATION OF EXISTING AND PROPOSED FACILITIES

Notification will be given to the Bureau of Land Management, District Office, with sufficient lead time, prior to construction of production facilities.

A. If well is productive, new on-well pad facilities and lines will be submitted as "as built" under the following guidelines:

1. Tank battery and/or location will be surrounded by a dike of sufficient capacity to contain the contents of the largest vessel within the dike plus one day's production.

2. Facilities will be placed in cut as much as possible.
3. All internal combustion engines associated with production facilities will be equipped with noise reducing mufflers.
4. All permanent (on site for six months or longer) structures (including pumping units) constructed or installed will be painted Desert Tan which is one of the standard environmental colors as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within six months of installation. Facilities or equipment required to comply with O.S.H.A. regulations will be excluded.
5. Fire prevention and suppression requirements for operations on Federal lands will be followed as per Bureau of Land Management guidelines.
6. No permanent above ground pipelines will be installed between the wellhead and treater or between the treater and flare pit.
7. All spills (production water or oil) or pipeline breaks outside the diked area and spills of 10 BBL or more within the firewall will be reported immediately to the District office.

5. LOCATION AND TYPE OF WATER SUPPLY

All water brought onsite will be Moab city water.

Fresh water and salt water will be trucked by a local trucking company.

6. SOURCE OF CONSTRUCTION MATERIALS

No construction materials will be used other than native materials. Soil from cuts will be used in fills.

Firewalls will be covered with gravel and tank grade bands will be filled with gravel.

7. METHODS FOR HANDLING WASTE DISPOSAL

A. Methods and location of proposed safe containment and disposal of each type of waste material:

1. Drill cuttings will be deposited in either the blooie pit or the reserve pit. Cuttings from air drilling will be deposited into the blooie pit. The design (size and shape) of the blooie pit has been modified to minimize the visible dust generation. After switching to the mud system, cuttings will be deposited into the reserve pit.
2. Drilling fluids will be confined to mud tanks and reserve pit if necessary. At rig release, mud will be returned to supplier for storage.
3. Produced Water: While testing the well, all produced water will be contained in a storage tank. If well is a producer, a saltwater storage tank will be installed with tank battery.
4. Sewage will be either treated on-site using an approved treatment unit or disposed of according to county and state requirements in a portable chemical toilet or in a hole at least 15 deep excavated in the cut portion of the well pad.
5. Portable dumpsters or "trash trailers" will be used for all trash. All trash will be hauled offsite.
6. If a fresh water flow is encountered during the air drilling operation, the water may be used for dust control on the location and access roads, provided the following conditions are met.
 - a. The BLM will be notified of our intent to use the water for this purpose.
 - b. The Chloride content of the water will be 6060 PPM or less, which is essentially equivalent to or less than 10,000 mg/l Total Dissolved Solids. Water with higher Chloride content may be used for dust control with specific prior approval of the BLM.

- c. The water will be tested by an independent lab or mud engineer and the results of the analysis will be provided to the BLM.
- B. The reserve pit shall be constructed so as not to leak, break, or allow discharge. The reserve pit will be inspected by BLM personnel during and after construction. Reserve pit will be lined with a synthetic liner consisting of a bentonite/soil mixture of 5 pounds of bentonite per square foot mixed to a depth of 8 inches, as specified by the BLM. An apron consisting of 12 mil plastic liner material will be placed under the mud tanks.

The blooie pit will be lined with a 12 mil plastic liner.

- C. After first production, produced waste water will be confined to a lined pit or storage tank for a period not to exceed ninety (90) days. During the ninety day period, in accordance with NTL-2B, an application for approval of permanent disposal method and location, along with required water analysis, shall be submitted for the authorized officer's approval.

8. ANCILLARY FACILITIES

No camp, airstrip or other facility will be built during the drilling of this well. Up to five trailers will be on location as temporary quarters for rig personnel during drilling operations.

9. WELL SITE LAYOUT

- A. See attachment for the Well Site Layout showing the following:

Substructure, Engine, Mud pumps, Mud tanks, Diesel tank, Water Tank, Boiler, Light plant, Dog house, Bunk house, Pipe racks, Catwalk, Choke manifold, Accumulator, Derrick stand, Wireline, Mud mixer, Change house, Trailers, Trash bin or trailer, parts house, Mud manifold, Mud storage, Desander/Desilter, Winterizing or parts tub.

Also attached is a cross section diagram showing cuts & fills in relation to existing topography.

The location will be as small as feasible but must accommodate the drilling rig and associated equipment with allowance made for future completion and production equipment.

No topsoil stripping will be done when soils are moisture saturated to a depth of 3 inches, or frozen below stripping depth.

B. Fencing requirements:

All pits will be fenced according to the following minimum standards:

1. 30-inch net wire shall be used with at least one strand of barbed wire on top of the net wire (barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence).
2. The net wire shall be no more than 2-inches above the ground. The barbed wire shall be 3-inches above the net wire. Total height of fence shall be 42-inches.
3. Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
4. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than 16 feet.
5. All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The reserve pit fencing will be on three sides during drilling operations and on the fourth side when the rig moves off the location. Pits will be fenced and maintained until clean-up.

10. PLANS FOR RESTORATION OF SURFACE

A. Production Location

1. Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, and materials not required for production. Trash, junk and debris will be removed.
2. Immediately upon well completion, any hydrocarbons on the pit shall be removed in accordance with 43 CFR Part 3162.7 (1).
3. The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed as soon as feasible upon cessation of use.

Before any dirt work takes place, the reserve pit must be sufficiently dry and any trash or debris will be removed and properly disposed of.

4. Seed mixtures to be used in rehabilitation will be provided by the BLM District Office. Seed mixtures will be certified weed free and seeding will be accomplished during the spring or fall. Seed tags will be submitted to the area manager within 30 days of seeding.
5. Topsoil stockpiles will be seeded if well is productive. Seeding will be performed at time of reserve pit closure.
6. Site rehabilitation will be completed within six (6) months, weather permitting. Before any production facilities are constructed, a site reclamation plan will be submitted to the District Office for all areas not required for production facilities.

B. Dry Hole/Abandoned Location

1. At such time as well is plugged and abandoned, the operator shall submit a report of abandonment and the BLM will attach the appropriate surface rehabilitation conditions of approval.

2. The location will be rehabilitated within six (6) months, weather permitting, from the date the well is plugged.

11. SURFACE OWNERSHIP

Surface location and access roads are owned by the United States of American under jurisdiction of the Bureau of Land Management.

12. OTHER INFORMATION

- A. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archeological sites, or for collecting artifacts. If historic or archeological materials are uncovered during construction, the operator will immediately stop work that further disturb such materials, and contact the authorized officer. Columbia Gas Development Corporation will comply with the requirements set forth by the BLM Surface Use Stipulations.
- B. Columbia Gas Development Corporation has a One Hundred and Fifty Thousand (150,000) dollar Nationwide Bond, copy attached.
- C. Drilling rigs and/or equipment used during drilling operations on this wellsite will not be stacked or stored on Federal Lands after the conclusion of drilling operations or at any other time without BLM authorization. However, if BLM authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.
- D. There will be no deviation from the proposed drilling program without prior approval from the District.
- E. Sundry Notice & Report on wells (Form 3160-5) will be

filed for approval of all changes of plans and other operations in accordance with 43 CFR 3164.

F. Dirt Contractor will be provided with an approved copy of the Surface Use plan.

G. Environmental Impacts.

1. Setting is approximately 20 miles west of Moab, Utah.
2. Surface disturbance will be approximately 2.1 acres during the drilling phase and approximately 2.0 acres in the completion/production phase. The affected area has an estimated vegetation coverage of 5 to 10%. The topsoil will be replaced during abandonment procedures and reseeded.

Surface impact will be temporary with no residual impacts. The surface location was moved as a result of the onsite meeting to reduce the surface disturbance.

3. Visual impacts will be more prominent during the drilling phase. The most equipment on site, including the drilling rig will be visible from Hwy 313 for approximately 50 days.

If the well is successful and production facilities are installed, some or all of the equipment will be visible. To the extent feasible, this impact will be mitigated by equipment placement and painting (See 4.A.4 of this Plan).

4. Audible impacts will be the greatest during the drilling and completion phases. Engine noise will be noticeable up to 3/4 mile during the drilling operations (estimated 50 days) and a 1/4 mile during the completion operations (estimated 10 days).
5. Particulate impacts will be temporary and local if dry soil conditions exist during construction and heavy traffic periods. Fugitive dust will be controlled by watering the road and location, as

necessary, during construction and periods of heavy traffic.

6. Recreational impacts are anticipated to be minimal. It will require approximately 44 truckloads to move the drilling rig in and the same number to move the rig out. Anticipated increased traffic other than moving the rig is 10 to 15 more vehicles per day during the drilling and 5 to 10 more vehicles per day during the completion. Increased traffic during production will be one auto and three trucks per day until a pipeline is installed. Other than some minimal increased traffic, there should be no other recreational impacts.

13. LESSEE'S OR OPERATOR REPRESENTATIVE AND CERTIFICATION

Representative:

Columbia Gas Development Corporation
P. O. Box 1350
Houston, Texas 77251-1350
713/871-3400

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved plan of operations, and any applicable Notice to Lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to insure compliance.

CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which currently exist; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Columbia Gas Development Corporation and its contractors and subcontractors in conformity with this APD package and the terms and conditions under which it is approved. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application, with bond coverage being provided under BLM Bond # U-391050-16RR.

This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

12/28/92
DATE

Richard A. Spell
Richard A. Spell
Manager,
Environmental, Safety & Regulatory

(713) 871-3400

EIGHT-POINT DRILLING PROGRAM

COMPANY: COLUMBIA GAS DEVELOPMENT CORPORATION

WELL NAME: KANE SPRINGS FEDERAL #25-19-34-1

LOCATION: Surface: 934' FNL & 1678' FEL
Bottomhole: 950' FEL & 1900' FSL
Section 34-T25S-R19E

ONSITE INSPECTION DATE: November 23, 1992

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulation (43 CFR 3100), Onshore Oil & Gas Order No.1, and the approved plan of operations.

A. DRILLING PROGRAM

1. Estimated Geologic Markers

Formation Tops	Depth	Subsea	RKB = 28
Navajo	Surface	+5824	
Wingate	245	+5604	
Chinle	580	+5269	
Cutler	1405	+4444	
Honaker Trail	2615	+3234	
Paradox Salt	4175	+1674	
Cane Creek	7460	-1611	

2. Estimated Depths of Anticipated Water, Oil, Gas or Other Minerals

Formation Tops	Depth	Subsea	Remarks
Wingate	245	+5604	Fresh Water
Cane Creek	7460	-1611	Oil

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth and adequately protected.

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3. Operator's Minimum Specification for Pressure Control Equipment

The Moab BLM Office shall be notified, with sufficient lead time, in order to have a BLM representative on location during pressure testing of BOPE.

A rotating head and blooey line will be rigged up on the conductor and surface pipe. (See Exhibit C-1)

One (1) annular bag-type preventer will be utilized while drilling the surface hole to 580' and intermediate hole to 4550' in the air drilling interval of the hole.

One (1) bag-type and three (3) ram-type preventers will be utilized while drilling below the intermediate pipe. Ram preventers are to be tested to seventy percent (70%) of working pressure, or seventy percent (70%) of burst rating of intermediate pipe, whichever is less. Annular preventer is to be tested to fifty percent (50%) of working pressure. (See Exhibit C-2)

Choke Manifold will meet or exceed the requirements of the typical 5M manifold as in Onshore Order #2. (See Exhibit C-3)

All BOPE and testing procedures will be consistent with API RP-53 and will be conducted before drilling out casing shoe. Preventers will be inspected and operated at least once daily to ensure good mechanical working order, and this inspection will be recorded on the daily drilling report.

4. Casing Program and Auxiliary Equipment

The Moab BLM Office shall be notified, with sufficient lead time, in order to have a BLM representative on location to witness the running and cementing of all casing strings.

Surface pipe:

INTERVAL	SIZE	WT	GR	CONN	BURST/SF	COL/SF
0-630'	13-3/8"	61	K-55	BTC	3090/14.8	1540/5.66
						TENSION/SF 1169M#/2.37

Drilling Program**Kane Springs Federal 25-19-34-1**

Set 50' into the Chinle. Cemented to Surface with 535 cu.ft. cement.

Intermediate Pipe:

INTERVAL	SIZE	WT	GR	CONN	BURST/SF	COL/SF
0-4550'	9-5/8"	40	K55	STC	3950/1.33	2570/2.26
					TENSION/SF	
					486M/2.67	

Cement back to 3050' with 564 cu. ft. cement. Pressure test to 2765 psi (70% burst) before drilling out shoe.

Collapse design based on .25 psi/ft gradient. Burst design based on shoe test of 14.5 ppge less .1 psi/ft gas gradient.

Production Pipe:

INTERVAL	SIZE	WT	GR	CONN	BURST/SF	COL/SF
0-7850'	7"	29	S95	LTC	9690/1.90	9200/1.23
					TENSION/SF	
					692 M/2.06	

Set 5' TVD into top of Cane Creek formation.

Cement w/634 cu. ft. cement, with estimated top of cement at 4150'. Pressure test to 5000 psi before drilling out shoe.

Collapse design based on 1.0 psi/ft overburden gradient. Burst based on max. mud weight in offset wells (17.0 ppg) less .22 psi/ft oil gradient.

Production Liner:

INTERVAL	SIZE	WT	GR	CONN	BURST/SF	COL/SF
7610-9850'	4-1/2	13.5	S95	BTC	10710/NA	10380/1.57
					TENSION/SF	
					388M/4.77	

Bottom 1590' to be pre-drilled with 3/4" holes, 3' apart at 90 deg. phase.

An isolation packer will be run on top of the liner.

Collapse design based on max. mud wt in offset wells (17.0 ppg).

Auxilliary Equipment:

- A. A Kelly cock will be kept in the string at all times.
- B. A stabbing valve will be kept on the derrick floor at all times.
- C. A float will not be used, other than when air drilling.

5. Proposed Mud Program

No chromates will be used in the well.

DEPTH	MUD WT	VIS	PV	YP	WL	TYPE MUD
0-630'	---	---	---	-	--	Air/Mist
630-4550'	---	---	---	--	--	Air/Mist
4550-7850'	12.0-15.0	35-50	18-35	20-22	<10	Oil Base
7850-9850'	15.5-17.0	35-50	18-35	20-22	<4	Oil Base

6. Coring, Logging & Testing Program

A. Drill Stem Tests: None planned.

B. Well Logging & Intervals:

- | LOG | INTERVAL |
|---|------------|
| 1) Induction/Sonic/GR | 4550-7850' |
| 2) Directional w/MWD/GR will be used in the horizontal section from 7850-9850'. | |
| 3) Fracture Identification log from 7850-9850'. | |

- C. Cores: A 30' oriented core will be attempted in Cane Creek formation.
- D. Directional Surveys: This well as proposed will be drilled vertically to 6985' and then drilled as a medium radius horizontal well at an azimuth of 163.23° for a total displacement of 2523'. Inclination test will be taken at 500' and at 1000' maximum intervals until KOP. At KOP a multi-shot will be taken. During the angle build portion, surveys will be taken at 90' maximum intervals. During the horizontal portion of the hole, surveys will be taken at 200' maximum intervals.
- E. Samples: Samples will be taken at 10' intervals from 4550' to TD.
- F. There will be a mud logger on location from 4550' (below intermediate pipe) to TD.
- G. Completion Procedure: To be submitted on Form 5 under "Approval of Subsequent Operations."

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations will be filed with Form 3160-4.

7. Anticipated Abnormal Pressures, Temperatures or Potential Hazards

Abnormal pressure is anticipated in the Cane Creek formation. The proposed casing program and pressure control equipment has been designed based on the anticipated abnormal pressures of the Cane Creek formation.

Hydrogen Sulfide is not anticipated.

8. Notification of Operations & Other Information

- A. Construction of Location will begin in the 1st Quarter of 1993.
- B. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from well to be placed in a suspended status without prior approval of the AO.
- C. Spud date will be in the 1st Quarter of 1993. The spud date will be reported orally to the AO within 48 hours after spudding. If the spudding occurs on a weekend or a holiday, the report will be submitted on the following regular work day. The oral report will be followed up with a Sundry Notice.
- D. Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the requirements of NTL-3A or its revisions.
- E. If replacement rig is contemplated for completion operations, a "Sundry Notice" to that effect will be filed, for prior approval of the AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Notification will be made no later than five (5) days following the date on which the well is placed on production.

Venting/Flaring of gas during initial well evaluation tests will not exceed a period of thirty days or the production of 50 MMCF of gas, whichever occurs first. An application will be filed with the District Engineer and approval received, for any Venting or Flaring beyond the initial 30 day authorized test period.

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" will be filed with the AO within 30 days following completion of the well for abandonment operations.

There will be no deviation from the proposed drilling and/or workover program without prior approval of the AO. Safe drilling and operating practices will be observed.

This well, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.

"Sundry Notice and Report on Wells" will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

EXHIBIT C-1

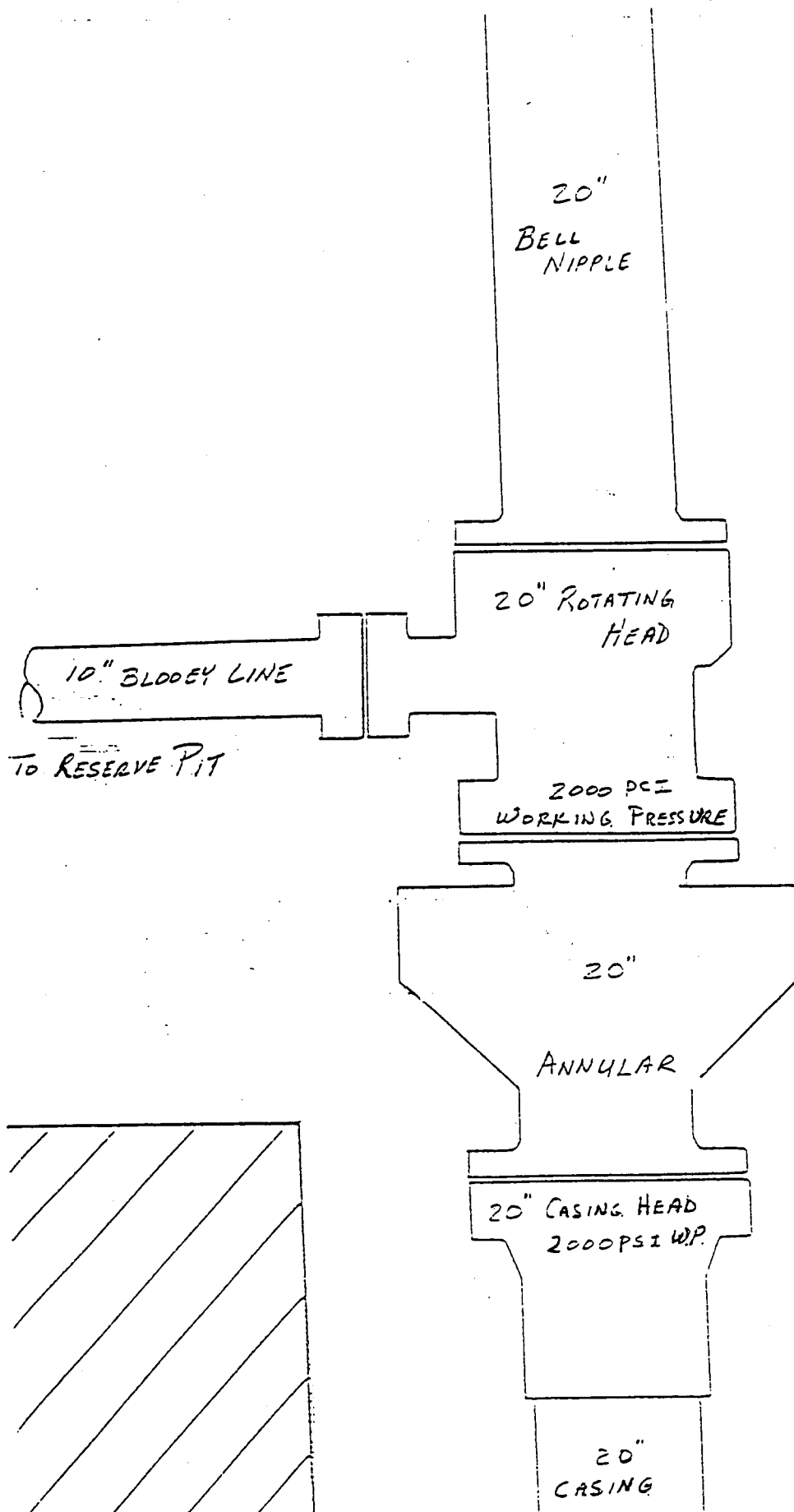
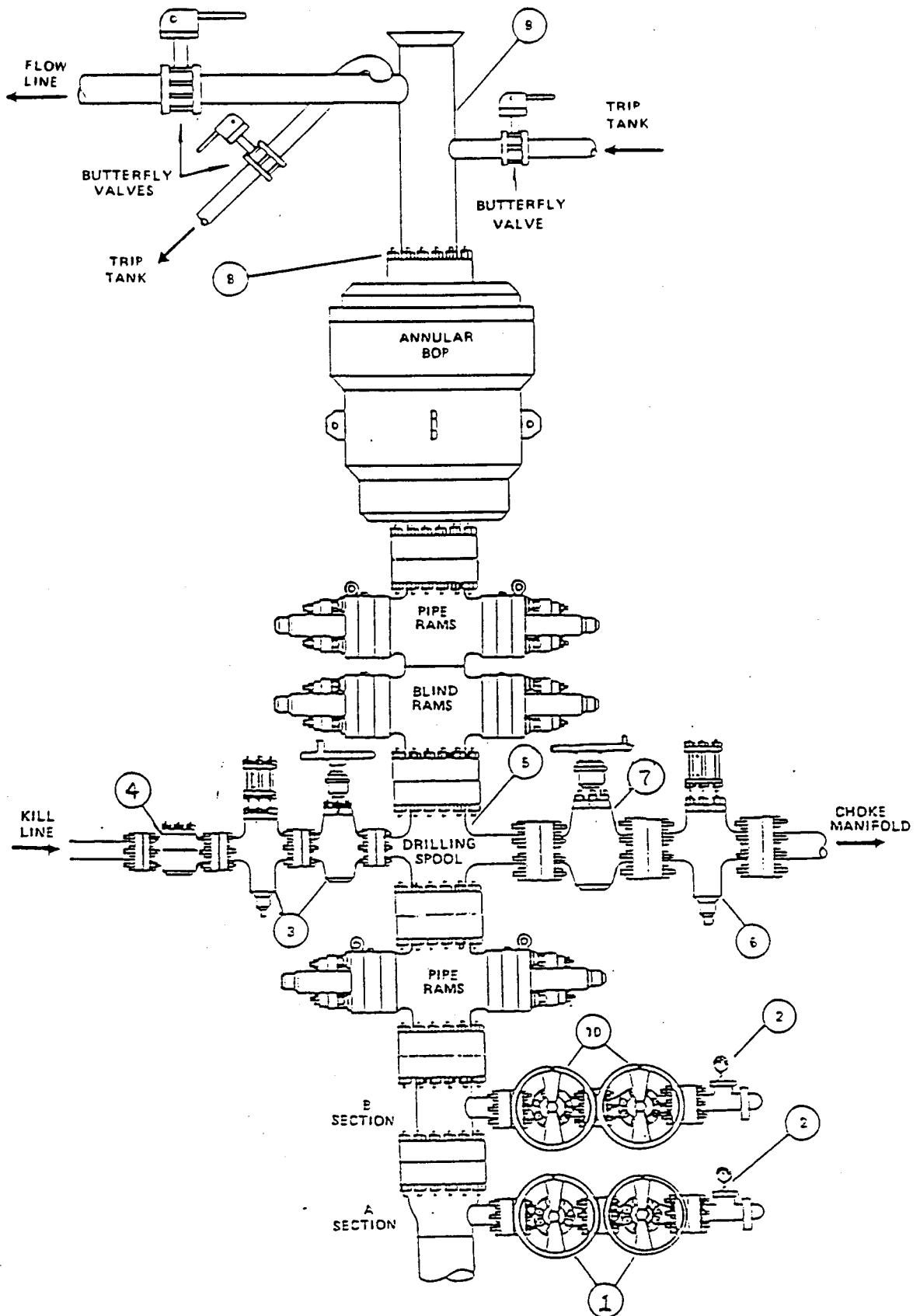


EXHIBIT C-2



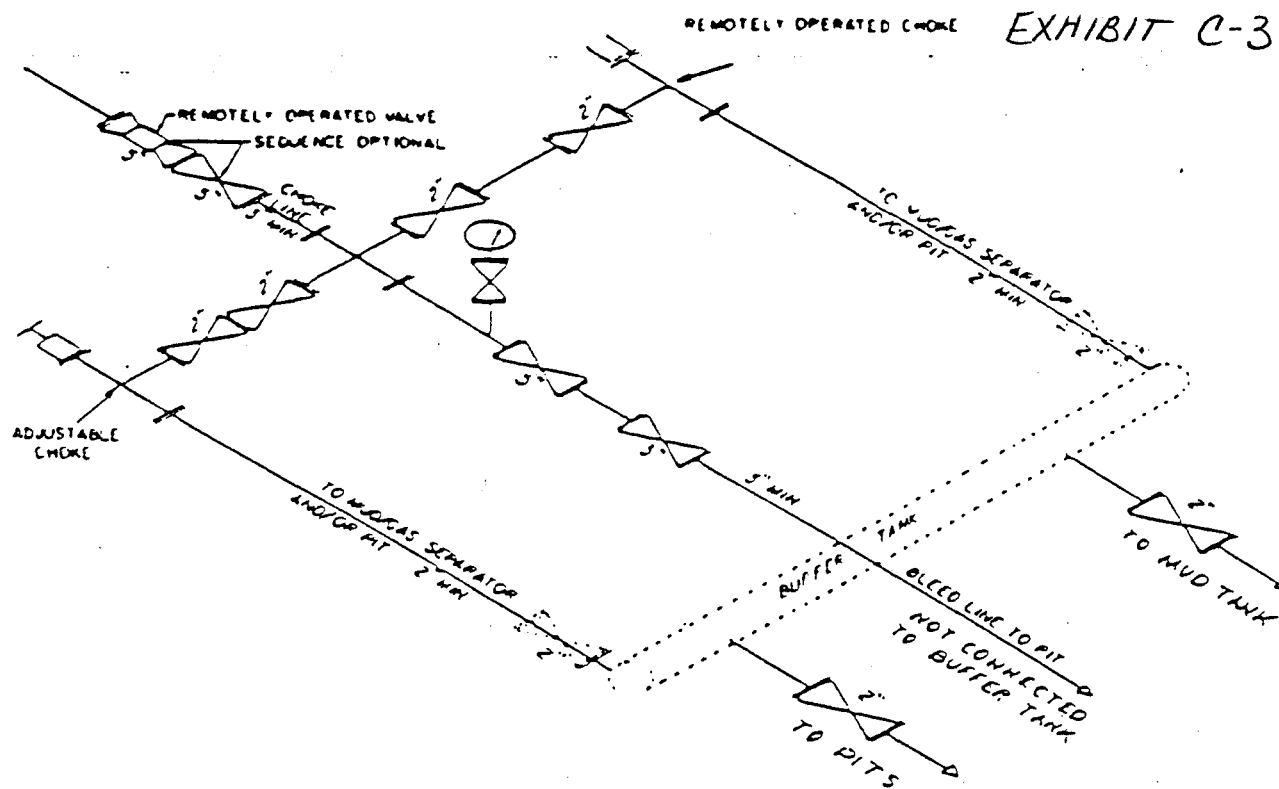
COMPONENT SPECIFICATIONS

1. Screwed or flanged plug or gate valves — 2" minimum nominal dia. — same working pressure as "A" section.
2. Tee with tapped bullplug, needle valve, and pressure gauge.
3. Flanged plug or gate valve — 2" minimum nominal dia. — same working pressure as BOP stack. Second valve up stream may be hydraulically controlled.
4. Flanged flapper type check valve — 2" minimum nominal dia. — same working pressure as BOP stack.
5. Drilling spool of sufficient height to allow stripping with 2 flanged side outlets — 3" choke and 2" kill line minimum nominal dia. (See Table II-4 and Note D.)
6. Flanged hydraulically controlled gate valve — 3" minimum nominal dia. — same working pressure as BOP stack. (See Note D.)
7. Flanged plug or gate valve — 3" minimum nominal dia. — same working pressure as BOP stack.
8. Top of annular preventer must be equipped with an API flange ring gasket. All flange studs must be in place or holes filled in with screw type plugs.
9. The I.D. of the bell nipple must not be less than the minimum I.D. of the BOP stack.
10. Flanged plug or gate valve — 2" minimum nominal dia. — same working pressure as "B" section.

NOTE:

The choke line between the drilling spool and choke manifold should not contain any bend or turn in the pipe body. Any bend or turn required should be made with a running tee with a blind flange or welded bullplug. All connections should be flanged or welded. All fabrications requiring welding must be done by a certified welder. Welds should be stress relieved when required.

Plug valves should be equivalent to the Howco Lo-Torc and gate valves equivalent to the Cameron Type 'F'.

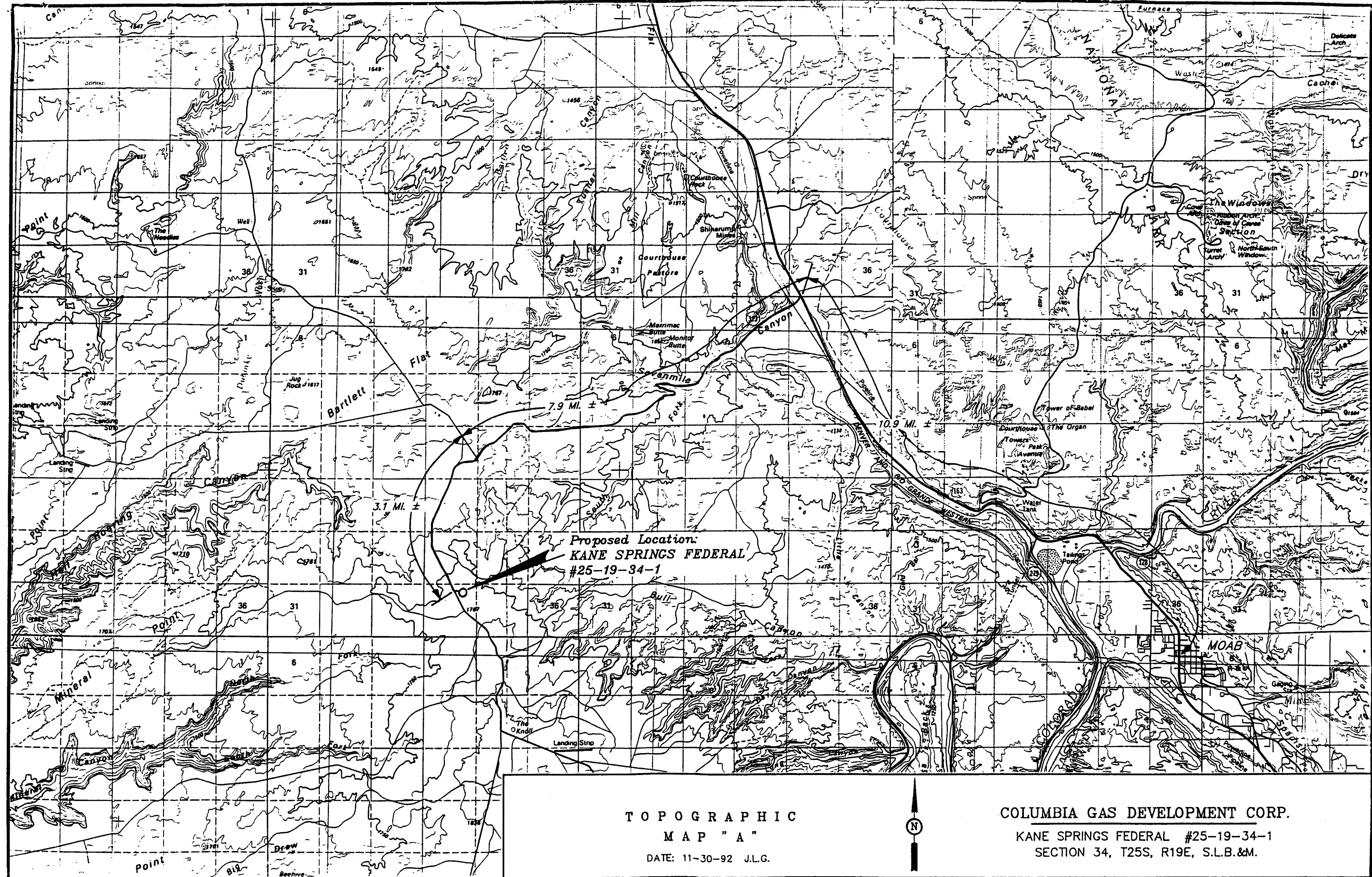


5M CHOKE MANIFOLD EQUIPMENT — CONFIGURATION MAY VARY

Although not required for any of the choke manifold systems, buffer tanks are sometimes installed downstream of the choke assemblies for the purpose of manifolding the bleed lines together. When buffer tanks are employed, valves shall be installed upstream to isolate a failure or malfunction without interrupting flow control. Though not shown on 2M, 3M, 10M, or 15M drawings, it would also be applicable to those situations.

[FR Doc. 88-25738 Filed 11-17-88; 2:45 am]

DEILING CODE 4210-04-C



TOPOGRAPHIC
MAP "A"

DATE: 11-30-92 J.L.G.



COLUMBIA GAS DEVELOPMENT CORP.

KANE SPRINGS FEDERAL #25-19-34-1
SECTION 34, T25S, R19E, S.L.B.&M.

85 South 200 East Vernal, Utah

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

DATE RECEIVED: 12/29/92

OPERATOR: COLUMBIA GAS DEVELOPMENT
WELL NAME: KANE SPRINGS FED 25-19-34-1

OPERATOR ACCT NO: N-5035

API NO. ASSIGNED: 13-019-31334

LEASE TYPE: FED

LEASE NO: 11-536004

LOCATION: NWNE 34 - T25S - R19E GRAND COUNTY

FIELD: UNDESIGNATED FIELD CODE: 0001

RECEIVED AND/OR REVIEWED:

☒ Plat
☒ Bond
(Number federal)
☒ Potash (Y/N)
☒ Oil shale (Y/N)
☒ Water permit
(Number no permit #)
☒ RDCC Review (Y/N)
(Date: _____)

LOCATION AND SITING:

☒ R649-2-3. Unit: Kane Springs
____ R649-3-2. General.
____ R649-3-3. Exception.
____ Drilling Unit.
____ Board Cause no: _____
____ Date: _____

COMMENTS: falls in supplemental 90 POO eff 1-13-93

Pot ash area

STIPULATIONS:

1- water permit

cc: Grand county assessor

CONFIDENTIAL

PERIOD

EXPIRED

ON 10-01-94



January 6, 1993

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T258-R19E
Grand County, Utah

Gentlemen:

Please find attached a corrected Application for Permit to Drill and page 12 of the Surface Use Plan to replace the ones recently submitted with the APD package for the above-referenced well. The only change made is to the number of air miles from the proposed location to Moab (changed from 20 to 14).

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

A handwritten signature in cursive script that reads "Wendy G. DesOrmeaux".

Wendy G. DesOrmeaux
Regulatory Coordinator

RECEIVED

JAN 11 1993

DIVISION OF
OIL GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL ☒ DEEPEN ☐ PLUG BACK ☐

b. TYPE OF WELL
OIL WELL ☒ GAS WELL ☐ OTHER ☐ SINGLE ZONE ☐ MULTIPLE ZONE ☐

2. NAME OF OPERATOR
Columbia Gas Development Corporation

3. ADDRESS OF OPERATOR
P.O. Box 1350, Houston, TX 77251-1350

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface 934' FNL & 1678' FEL

At proposed prod. zone
BHL: 950' FEL & 1900' FSL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE
14 air miles WNW of Moab

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
(Also to nearest drig. unit line, if any)
386'

16. NO. OF ACRES IN LEASE
1,560

17. NO. OF ACRES ASSIGNED TO THIS WELL
640

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
2900'

19. PROPOSED DEPTH
9850'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5821.2' Gr.

22. APPROX. DATE WORK WILL START
1st Quarter, 1993

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2	13-3/8"	61	630'	535 cu. ft. cement
12-1/4	9-5/8"	40	4550'	564 cu. ft. cmt.
8-3/4	7"	29	7850'	634 cu. ft.
6"	4-1/2"	13.5	9850'	Pkr @ 7610'

SEE ATTACHED FOR SUPPLEMENTAL INFO:

- 1) Eight Point Drilling Program
- 2) Multi-Point Surface Use Plan
- 3) BOPE Diagram
- 4) Certified surveyor's plat, cut & fill sheet, area top
- 5) Certification

RECEIVED

JAN 11 1993

DIVISION OF
OIL GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Wendy G. Sedberry TITLE Regulatory Coordinator DATE 12/28/92

(This space for Federal or State office use)

PERMIT NO. _____

APPROVAL DATE _____

APPROVED BY _____

TITLE _____

DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1A. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER

SINGLE
ZONE ☐

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Columbia Gas Development Corporation

3. ADDRESS OF OPERATOR

P.O. Box 1350, Houston, TX 77251-1350

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

934' FNL & 1678' FEL

At proposed prod. zone

BHL: 950' FEL & 1900' FSL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

14 air miles WNW of Moab

16. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT. 386'
(Also to nearest drig. unit line, if any)

16. NO. OF ACRES IN LEASE

1,560

17. NO. OF ACRES ASSIGNED

TO THIS WELL

640

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

2900'

19. PROPOSED DEPTH

9850'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5821.2' Gr.

22. APPROX. DATE WORK WILL START*

1st Quarter, 1993

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
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6"	4-1/2"	13.5	9850'	Pkr @ 7610'

SEE ATTACHED FOR SUPPLEMENTAL INFO:

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- 3) BOPE Diagram
- 4) Certified surveyor's plat, cut & fill sheet, area to be
- 5) Certification

RECEIVED

JAN 11 1993

DIVISION OF
OIL GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout prevention program, if any.

24.

SIGNER

Wendy G. Sedoreaux

TITLE

Regulatory Coordinator

DATE 12/28/92

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

CONFIDENTIAL

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

filed for approval of all changes of plans and other operations in accordance with 43 CFR 3164.

F. Dirt Contractor will be provided with an approved copy of the Surface Use plan.

G. Environmental Impacts.

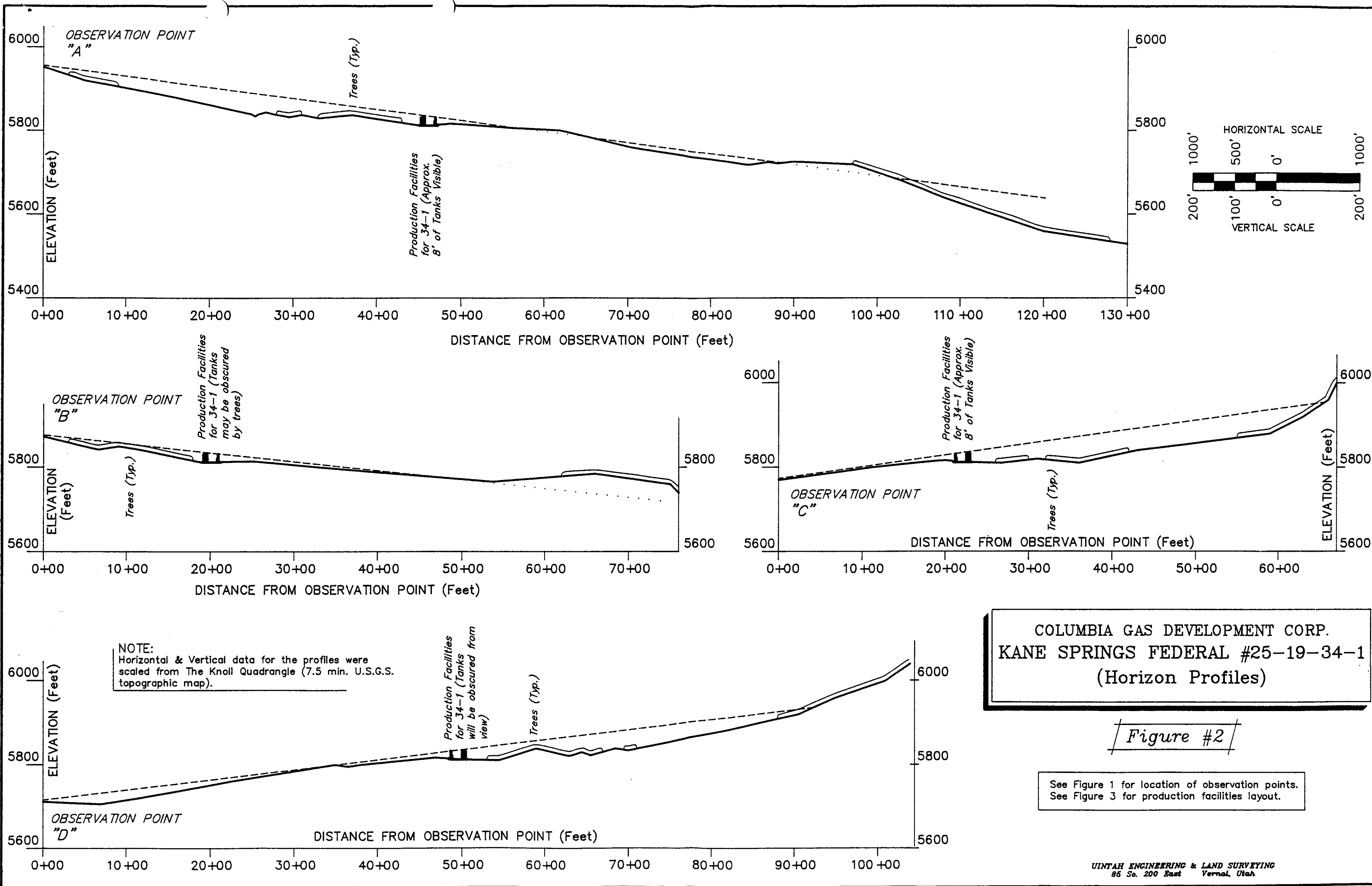
1. Setting is approximately 14 miles WNW of Moab, Utah.
2. Surface disturbance will be approximately 2.1 acres during the drilling phase and approximately 2.0 acres in the completion/production phase. The affected area has an estimated vegetation coverage of 5 to 10%. The topsoil will be replaced during abandonment procedures and reseeded.

Surface impact will be temporary with no residual impacts. The surface location was moved as a result of the onsite meeting to reduce the surface disturbance.

3. Visual impacts will be more prominent during the drilling phase. The most equipment on site, including the drilling rig will be visible from Hwy 313 for approximately 50 days.

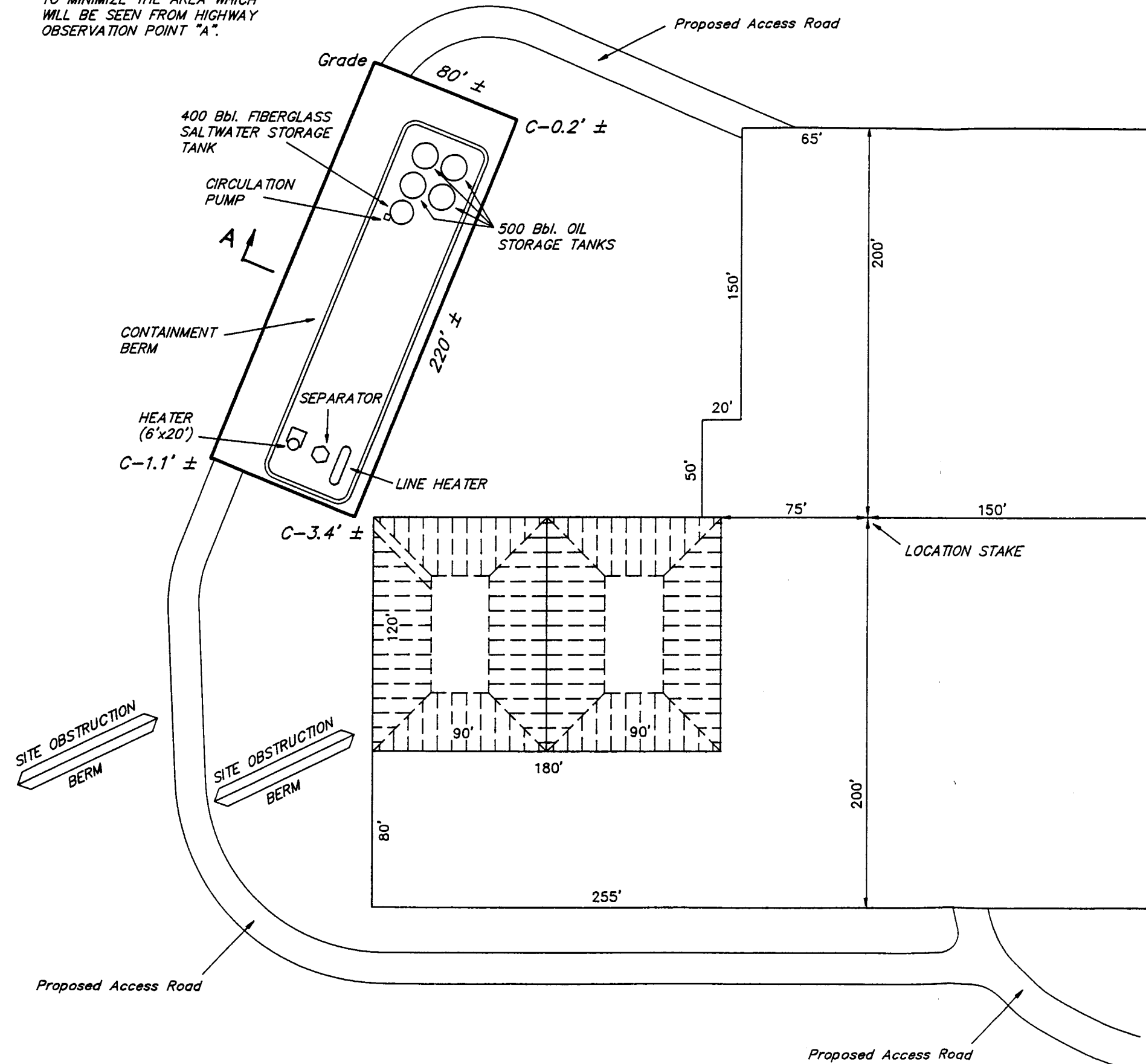
If the well is successful and production facilities are installed, some or all of the equipment will be visible. To the extent feasible, this impact will be mitigated by equipment placement and painting (See 4.A.4 of this Plan).

4. Audible impacts will be the greatest during the drilling and completion phases. Engine noise will be noticeable up to 3/4 mile during the drilling operations (estimated 50 days) and a 1/4 mile during the completion operations (estimated 10 days).
5. Particulate impacts will be temporary and local if dry soil conditions exist during construction and heavy traffic periods. Fugitive dust will be controlled by watering the road and location, as



NOTE:

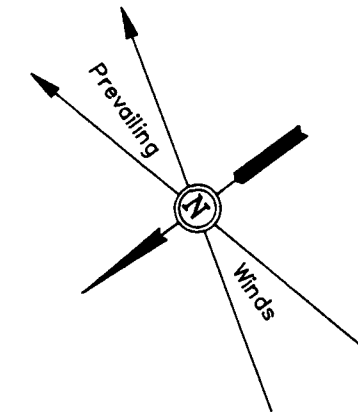
PRODUCTION FACILITY
LAYOUT HAS BEEN TURNED
TO MINIMIZE THE AREA WHICH
WILL BE SEEN FROM HIGHWAY
OBSERVATION POINT "A".



COLUMBIA GAS DEVELOPMENT CORP.

PRODUCTION FACILITIES LAYOUT FOR
KANE SPRINGS FEDERAL #25-19-34-1
SECTION 34, T25S, R19E, S.L.B.&M.

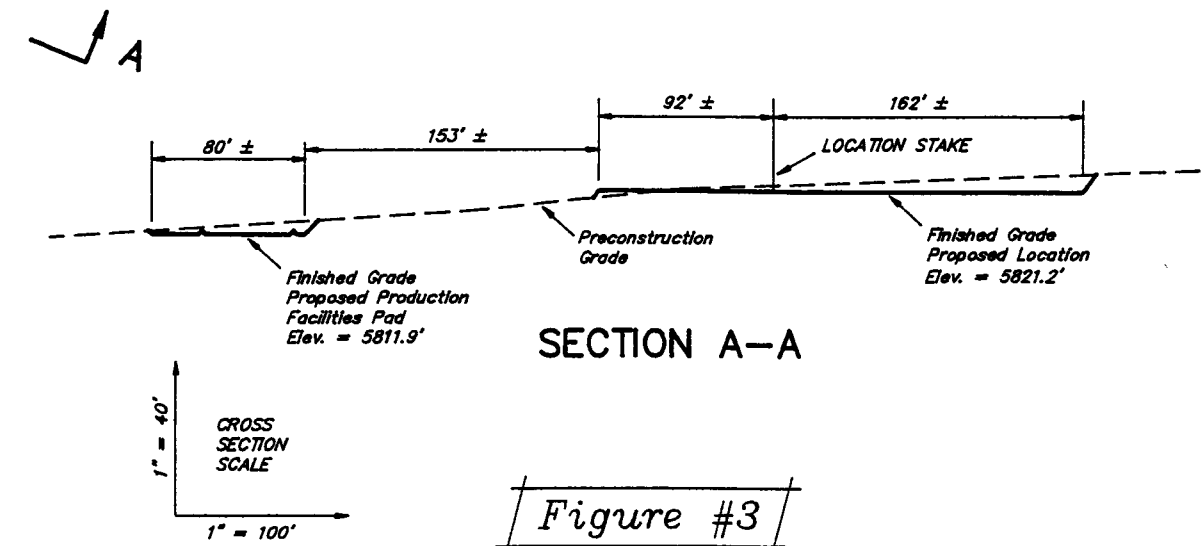
SCALE: 1" = 60'
DATE: 2-19-93
Drawn By: T.D.H.



APPROXIMATE YARDAGES ON
PRODUCTION FACILITY PAD

TOTAL CUT = 765 ± CU.YDS.

NOTE:
Any Excess Yardage Should be Used
in the Construction of the Containment
Berm & the Site Obstruction Berms.



See Figure 1 for location of observation points.
See Figure 2 for horizon profiles.

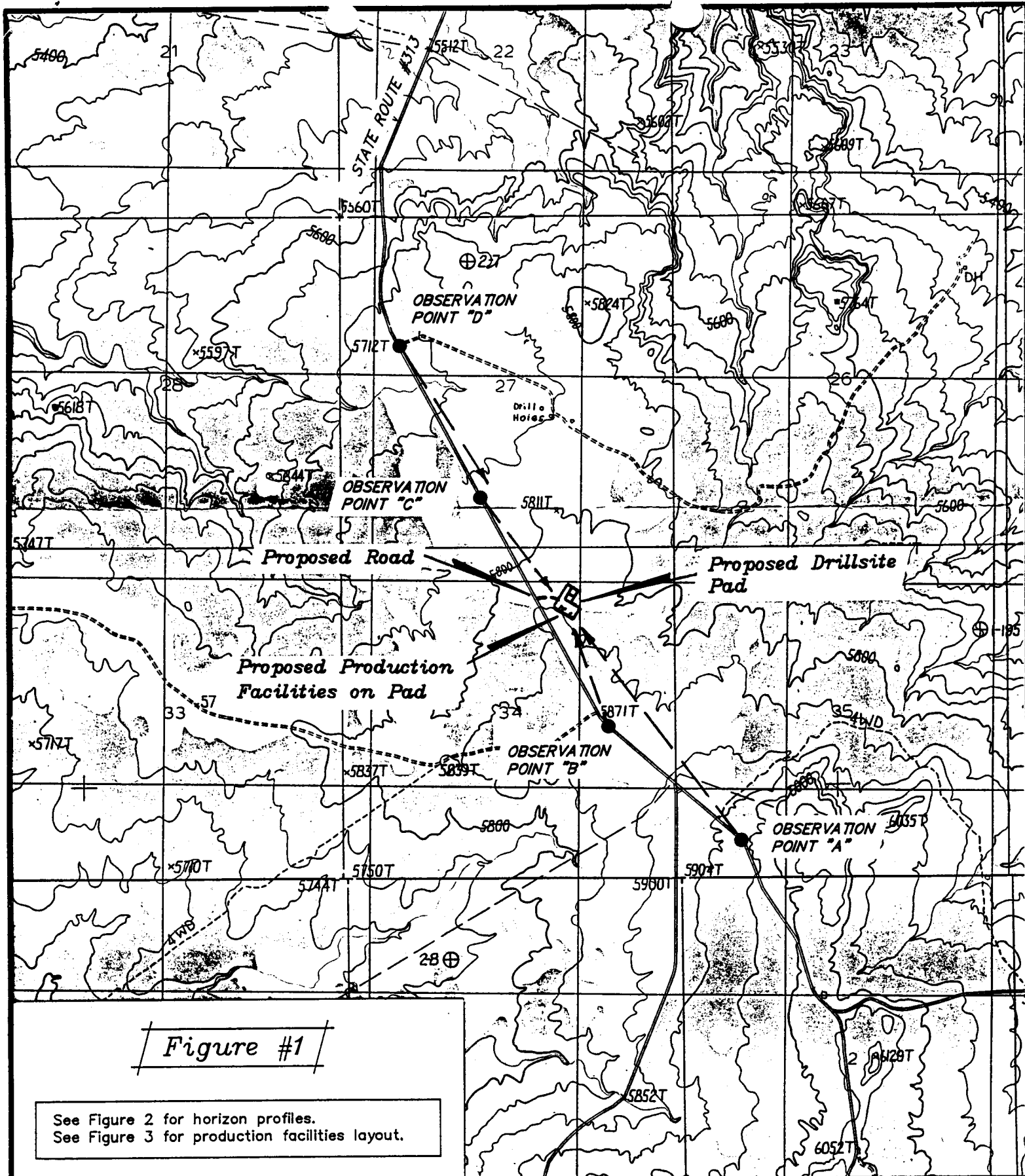


Figure #1

See Figure 2 for horizon profiles.
See Figure 3 for production facilities layout.

LEGEND

● = OBSERVATION POINT

— — — — — = LINE OF SIGHT

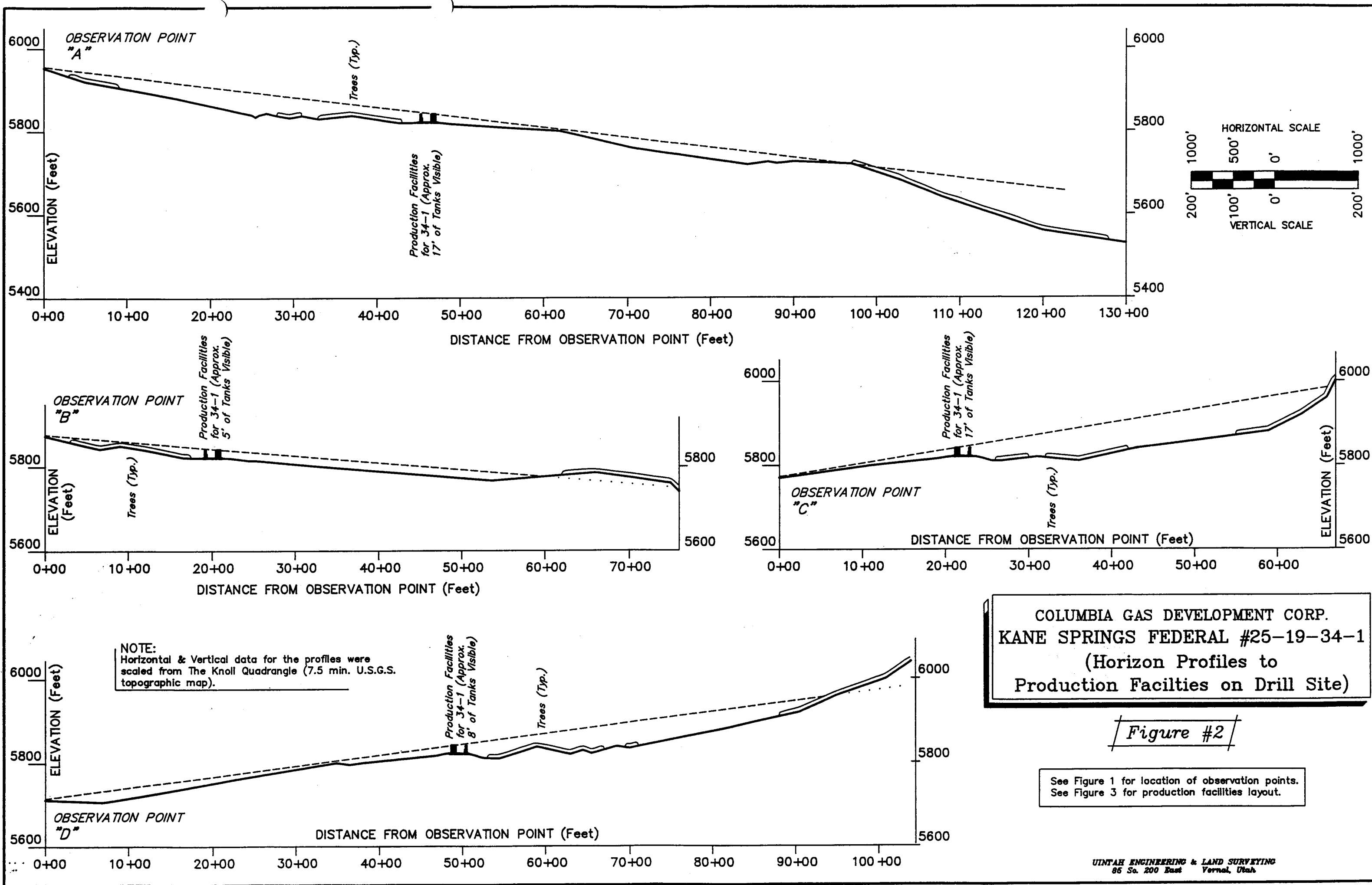
SCALE: 1" = 2000'

DATE: 2-22-93 T.D.H.



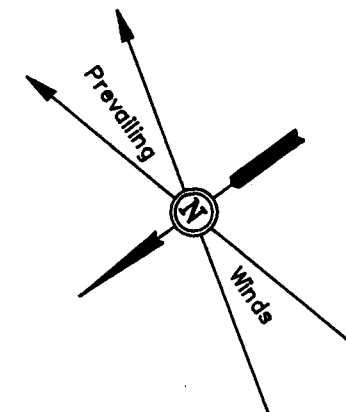
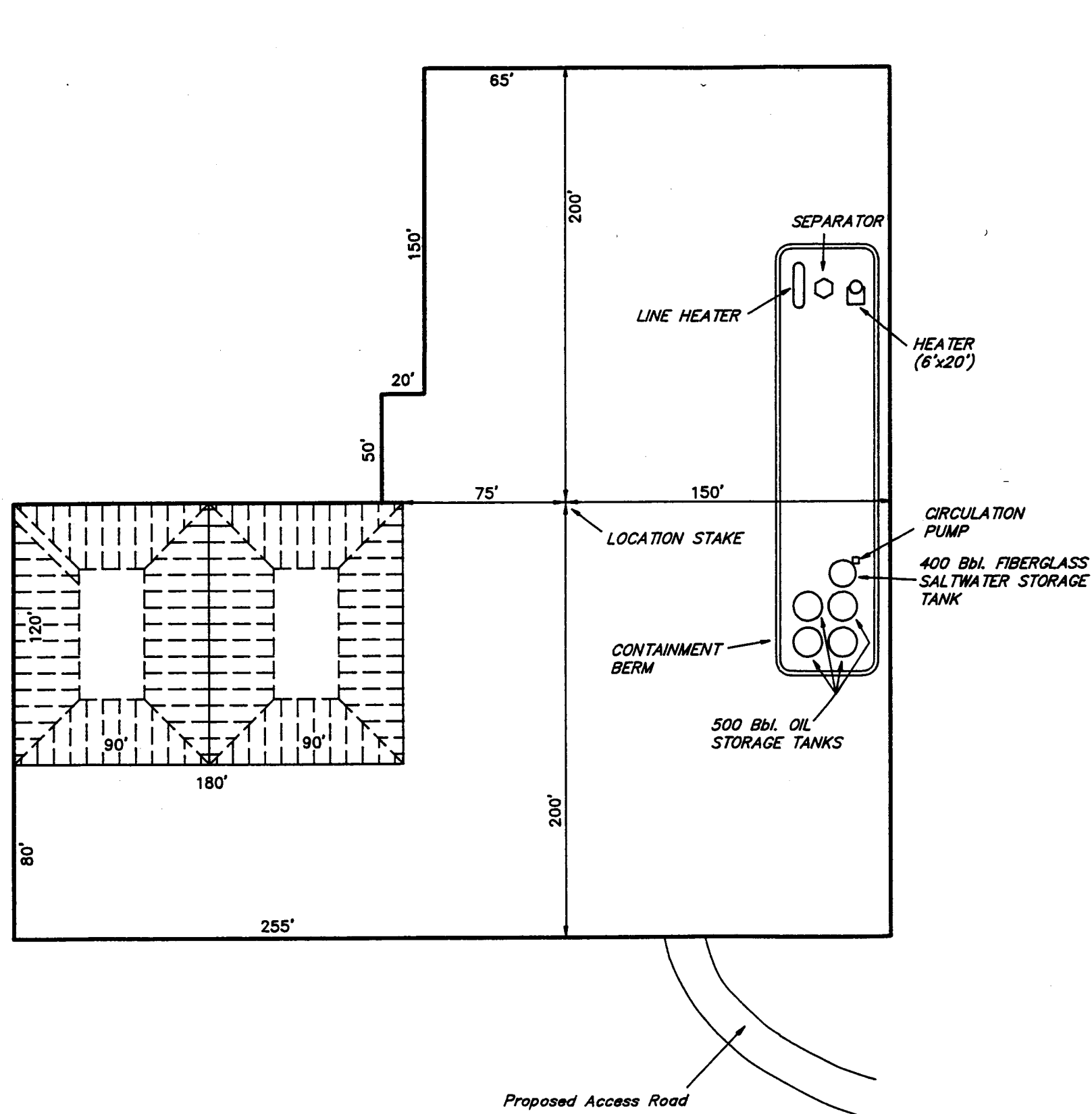
COLUMBIA GAS DEVELOPMENT CORP.

**OBSERVATION POINTS LINE OF SIGHT
TO PRODUCTION FACILITIES ON DRILLSITE**
KANE SPRINGS FEDERAL #25-19-34-1
SECTION 34, T25S, R19E, S.L.B.&M.



COLUMBIA GAS DEVELOPMENT CORP.

PRODUCTION FACILITIES LAYOUT FOR
KANE SPRINGS FEDERAL #25-19-34-1
SECTION 34, T25S, R19E, S.L.B.&M.



SCALE: 1" = 60'
DATE: 2-22-93
Drawn By: T.D.H.

Figure #3

See Figure 1 for location of observation points.
See Figure 2 for horizon profiles.



RECEIVED

CONFIDENTIAL INFORMATION
JAN 13 1993

APPROVED - EFFECTIVE JAN 13 1993

CHIEF, BRANCH OF FLUID MINERALS
BUREAU OF LAND MANAGEMENT

January 7, 1993

DIVISION OF
OIL & GAS MINING

United States Department of the Interior
Bureau of Land Management
Utah State Office
P. O. Box 45155
Salt Lake City, UT 84155

Attn: Mr. Robert Henricks

RE: Supplemental 1992 Plan of Development
Kane Springs Federal Unit
Grand and San Juan Counties, UT

Dear Mr. Henricks:

Columbia Gas Development Corporation hereby submits the following changes to the 1992 Plan of Development for the Kane Springs Federal Unit.

Columbia has drilled and completed the Kane Springs Federal #10-1 Well as the confirmation well for the second expansion of the Kane Springs Federal Unit, which was approved by the BLM on August 1, 1991. The well was spudded on September 13, 1992 and reached a total depth of 8110' TVD (9080' MD) on November 1, 1992. The well was completed on November 19, 1992 as a horizontal oil well in the Cane Creek Zone of the Paradox Formation. On November 19 - 21, 1992 during a 48-hour test, the well produced at a rate of 1325 BOPD and 879 MCFGD through a 10/64" choke with a flowing tubing pressure of 4,390 psi. The well is currently flowing 715 BOPD, 500 MCFG and no water through a 8/64" choke, with a flowing tubing pressure of 4,600 psi.

Columbia or its partners plan to drill three (3) additional wells. The contemplated wells will be drilled depending on evaluation of existing geophysical data, existing well production flow rates and success of other wells drilled in the play.

The Kane Springs Unit #21-1 Well is located southwest of the Kane Springs Federal #10-1 Well in the SE/4NE/4 Section 21, Township 25 South-Range 18 East. The well is to be drilled to an objective depth of 9924' MD/7460' TVD with a bottom hole location in the NE/4SE/4 Section 16, Township 25 South-Range 18 East. This provides for a horizontal displacement of approximately 2,000' in the Cane Creek Zone. The well is currently being permitted by Coastal. There are no contractual obligations on this well. The estimated spud date for the well is July 1, 1993.

DOGM

January 7, 1993

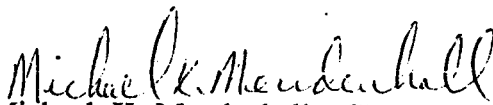
The Kane Springs Federal #25-19-34-1 Well is a southern offset to the Kane Springs Federal #27-1 Well. This will be a 9850' MD/7500' TVD Cane Creek Zone test. The surface location for the well is 934' FNL, 1678' FEL, Section 34, Township 25 South-Range 19 East and is anticipated to displace 2000' in the Cane Creek Zone. The projected bottom hole location is 950' FEL, 1900' FSL, Section 34, Township 25 South-Range 19 East. The well is currently being permitted. There are no contractual obligations on this well. Columbia anticipates commencing this well by April 1, 1993.

The Kane Springs Federal #26-20-18-1 Well is a northern offset to the Kane Springs Federal #19-1A Well. This will be a 10,000' MD/7750' TVD Cane Creek Zone test. The surface location for the well is 1300' FSL, 1200' FEL, Section 18, Township 26 South-Range 20 East and is anticipated to displace 2000' in the Cane Creek Zone. The projected bottom hole location is 1375' FEL, 1350' FNL, Section 18, Township 26 South-Range 20 East. The well is currently being permitted. There are no contractual obligations on this well. The well will not be drilled until later in the year.

Columbia plans to reprocess approximately 40 miles of seismic over the Kane Springs Federal #25-19-34-1 and #26-20-18-1 well locations. This work is currently in progress.

Columbia is preparing a 1993 Plan of Development which will be submitted to the BLM after approval of the plan by Coastal Oil & Gas Corporation, EP Operating Company, LP and Exxon Corporation.

Very truly yours,


Michael K. Mendenhall, CPL
Senior Landman

/ccr-w

cc: Richard Spell

John Heidtbrink
COASTALOIL & GAS CORPORATION

Robert Fields
EXXON COMPANY, USA

Gregg Abell
EP OPERATING COMPANY, LP

RECEIVED

JAN 15 1993

DIVISION OF
OIL & GAS



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Moab District
Grand Resource Area
885 South Sand Flats Road
Moab, Utah 84532

1790
(UT-068)

*Columbia Gas
Development Corp.*

January 21, 1993

Kane Springs Fed. 75-19-34-1

Dear Sir/Madam:

Attached is your requested copy of the proposed actions for three oil wells in the Kane Springs Unit. The proposed wells would be drilled in the Big Flat and Deadman Point areas, approximately 15-20 miles west of Moab. The 30-day public comment period begins January 21, 1993. Comments should address potential environmental impacts and mitigation that could occur at the proposed well locations. To be considered, comments must be received in the Grand Resource Area office by 4:30 p.m. on February 19, 1993. Thank you for your participation.

Sincerely yours,

Area Manager

Enclosure: Proposed Action

INTRODUCTION

Three wells have been proposed within the Kane Springs Unit. Maps for each proposed well location are attached.

On December 29, 1992, Columbia Gas Development Corporation (Columbia) submitted an Application for Permit to Drill (APD) for the Kane Springs Federal 25-19-34-1 Well. The surface location of the well would be in the NW $\frac{1}{4}$ NE $\frac{1}{4}$ section 34, T. 25 S., R. 19 E., SLM. The proposed well would be approximately one mile south of the Kane Springs Federal 27-1 well.

On January 4, 1993, Coastal Oil and Gas Corporation (Coastal) submitted an APD for the Kane Springs Federal 21-1 Well. The surface location of the well would be in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ section 21, T. 25 S., R. 18 E., SLM. The proposed well would be approximately two miles southwest of the Kane Springs Federal 10-1 well.

On January 6, 1993, Columbia submitted an APD for the Kane Springs Federal 26-20-18-1 Well. The surface location of the well would be in the SE $\frac{1}{4}$ SE $\frac{1}{4}$ section 18, T. 26 S., R. 20 E., SLM. The proposed well would be approximately 1.1 mile north of the Kane Springs Federal 19-1A well.

The approval of each APD would authorize the drilling of an oil well at the proposed location. APDs and subsequent approvals are authorized for one year. The approved wells could be drilled in this area during the authorized period or until the cumulative impacts and expected threshold (10 wells) addressed in EA UT-060-89-25 have been met.

PROPOSED ACTIONS

Each proposed action would require the construction and maintenance of a well pad to drill, possibly produce and eventually plug/abandon an oil well at each of the proposed locations. The Drilling Programs submitted with the APDs provide specifications and mitigation for drilling through potential water and hydrocarbon zones, casing and cementing programs, pressure control equipment, drilling fluid programs, and well evaluation programs. The proposed wells would be drilled and completed as horizontal wells. The drilling information would be reviewed by Petroleum Engineers in the Moab District Office prior to the approval of an APD.

The Surface Use Plans submitted with the APDs provide specifications for construction, operation, and restoration of the well sites. The Surface Use Plans were developed during onsite inspections of the areas. Representatives from Columbia, Coastal, Utah Division of Oil, Gas, and Mining, and BLM participated in the inspections. The Surface Use Plans provide the proposed action for environmental review. The following information is a summary of the proposed actions.

State highways 191 and 313 would provide access to all three of the proposed wells. Access to the Coastal 21-1 well would follow highway 313 and turn at the Dubinky Well Road. The Dubinky Well Road and Spring Canyon Roads would be followed for approximately 7.6 miles. The Coastal 21-1 well would be located along an existing dirt road approximately 0.7 mile south of Spring Canyon Road. The dirt road would be upgraded within a width of 35 feet.

Approximately 0.1 mile of new road would be constructed between highway 313 and the proposed location for the Columbia 25-19-34-1 well. In addition to highway 313, approximately 0.9 mile of existing roads and 0.1 mile of new road construction would be utilized to access the Columbia 26-20-18-1 well. The upgrading of approximately 0.3 mile of existing road and the construction of the new roads would require a road width of 35 feet to include the travel surface, ditches and topsoil berms.

The construction of each proposed drilling location and well site would involve a surface disturbance of approximately 450 feet by 400 feet. The top 6 inches of soil would be stockpiled. A lined reserve pit would be constructed within the surface disturbance of the proposed well sites. Location layout diagrams are attached for each proposed well.

The construction of a well site would require about 10 days, and the drilling operations would take approximately 50 days for each well. Well testing and completion activities could take another 20-30 days for each well. The initial drilling would utilize an air drilling system, cuttings would be contained in a bloopie pit and the bloopie line would be misted to control dust. An oil-base drilling mud required for these types of wells would be used to finish the drilling. All fluids used during the drilling or testing of the well would be contained in a fenced reserve pit. The reserve pit would be fenced on three sides during drilling operations and the fourth side would be fenced when the rig moves off the location. After the fluids have been removed or evaporated, the reserve pit would be stabilized, covered with the subsoil stockpiled during construction of the pit, and reclaimed. Sewage would be contained in a chemical toilet during the drilling operations. Trash would be stored in a portable self-contained trash cage and hauled to an approved sanitary landfill when the drilling is completed.

If commercial production is established, the subsequent production facilities would be located at the well site. Attached is diagram of two typical production facility layouts. The design of a production facility would be based on production during the well tests, cut and fill at the well site, and potential visual impacts. An area of approximately 400 feet by 300 feet would be needed for the production facilities. The anticipated production facilities on a well pad would include a tank battery, heater treater, separator, circulation pump and flare pit. A typical tank battery would include 3-4 tanks (500 barrel capacity) to contain oil and an additional tank for produced water. The tank battery and heater treater would be surrounded by a berm adequate to contain any fluids lost during production handling. Internal combustion engines associated with production facilities would be equipped with noise reducing mufflers. All permanent production facilities would be painted a neutral non-reflective color. If the well is a producer, additional upgrading and maintenance would be needed for drainage control on new roads. Unless pipelines were constructed to this area, oil production would be hauled from the well site by tanker trucks and gas would be flared pursuant to the guidelines in NTL-4A.

If a well is not developed into a producing well or when it is no longer commercially productive, the well would be plugged following the specifications developed by the Moab District Engineers. Gravel would be removed from the areas requiring reclamation. The well pad and access road would be recontoured, topsoil replaced, scarified, and seeded as specified in the surface use plan of the APD.

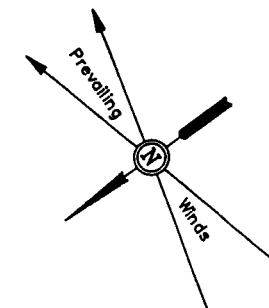
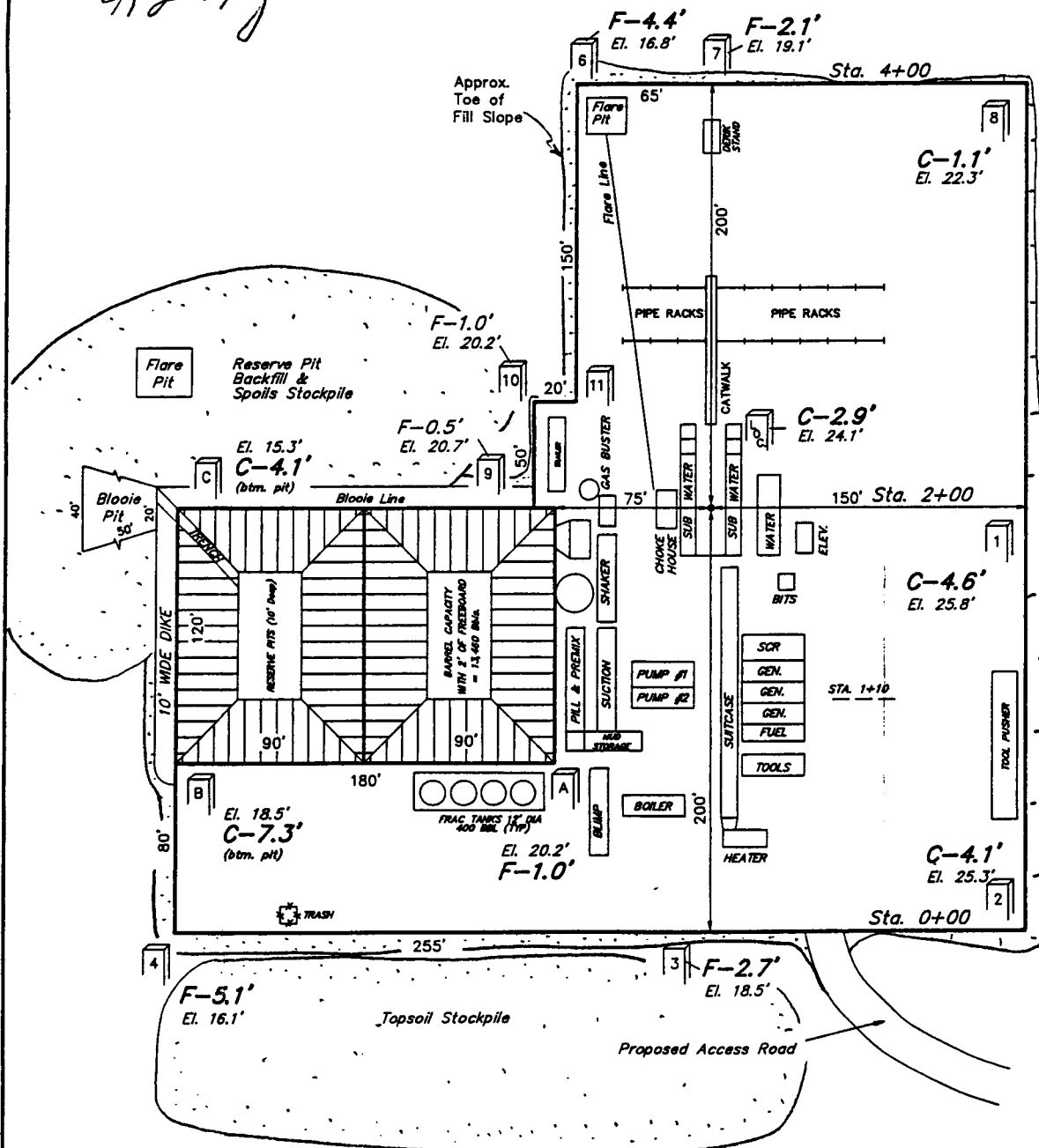
NO ACTION ALTERNATIVES

With the no-action alternative, an APD would not be approved and the drilling would not be allowed at the proposed location.

R. L. Kay

COLUMBIA GAS DEVELOPMENT CORP.

LOCATION LAYOUT FOR
KANE SPRINGS FEDERAL #25-19-34-1
SECTION 34, T25S, R19E, S.L.B.&M.

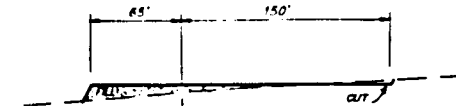


SCALE: 1" = 60'
DATE: 11-25-92
Drawn By: R.E.H.

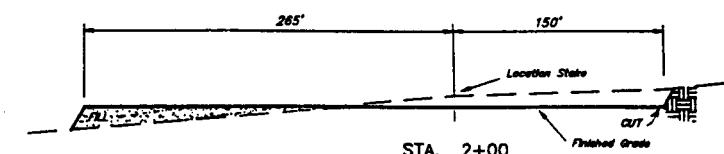
Approx. Top of Cut Slope

X-Section Scale
1" = 40'
1" = 100'

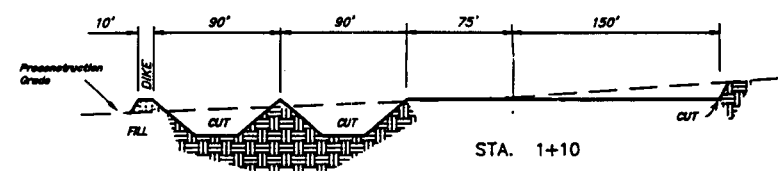
TYP. CROSS SECTIONS
TYP. LOCATION LAYOUT



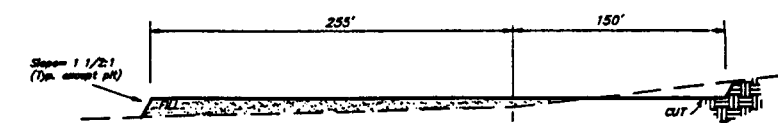
STA. 4+00



STA. 2+00



STA. 1+10



STA. 0+00

APPROXIMATE YARDAGES

CUT (6") Topsoil Stripping	= 2,200 Cu. Yds.	EXCESS MATERIAL AFTER 5% COMPACTION	= 4,000 Cu. Yds.
Remaining Location	= 7,740 Cu. Yds.	Topsoil & Pit Backfill (1/2 Pit Vol.)	= 3,980 Cu. Yds.
TOTAL CUT	= 9,940 CU.YDS.	EXCESS UNBALANCE (After Rehabilitation)	= 20 Cu. Yds.
FILL	= 5,640 CU.YDS.		

NOTES:

Elev. Ungraded Ground At Loc. Stake = 5824.1'
FINISHED GRADE ELEV. AT LOC. STAKE = 5821.2'

UINTAH ENGINEERING & LAND SURVEYING
85 South 200 East Vernal, Utah



Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

March 8, 1993

Columbia Gas Development Corporation
P.O. Box 1350
Houston, Texas 77251-1350

Gentlemen:

Re: Kane Springs Federal 25-19-34-1 Well, 934 feet from the north line, 1678 feet from the east line, NW 1/4 NE 1/4, Section 34, Township 25 South, Range 19 East, Grand County, Utah

Pursuant to Utah Code Ann. § 40-6-18, (1953, as amended), Utah Admin. R. 649-2-3, Application of Rules to Unit Agreements and R. 649-3-4, Permitting of Wells to be Drilled, Deepened or Plugged-Back, approval to drill the referenced well is hereby granted.

In addition, the following specific actions are necessary to fully comply with this approval:

1. Compliance with the requirements of Utah Admin. R. 649-1 et seq., Oil and Gas Conservation General Rules.
2. Notification within 24 hours after drilling operations commence.
3. Submittal of Entity Action Form, Form 6, within five working days following commencement of drilling operations and whenever a change in operations or interests necessitates an entity status change.
4. Submittal of the Report of Water Encountered During Drilling, Form 7.
5. Prompt notification prior to commencing operations, if necessary, to plug and abandon the well. Notify Frank R. Matthews, Petroleum Engineer, (Office) (801)538-5340, (Home) (801)476-8613, or R.J. Firth, Associate Director, (Home) (801)571-6068.

Page 2


Columbia Gas Development Corporation
Kane Springs Federal 25-19-34-1 Well
March 8, 1993

6. Compliance with the requirements of Utah Admin. R. 649-3-20, Gas Flaring or Venting, if the well is completed for production.

Trash and sanitary waste should be properly contained and transported to approved disposal locations, not retained in or disposed of in pits on location or downhole. Prior to the commencement of drilling operations, the operator should consult the local/county sanitarian and/or the Department of Environmental Quality, Division of Drinking Water/Sanitation, regarding appropriate disposal of sanitary waste.

This approval shall expire one year after date of issuance unless substantial and continuous operation is underway or a request for an extension is made prior to the approval expiration date. The API number assigned to this well is 43-019-31334.

Sincerely,


for R.J. Firth
Associate Director, Oil and Gas

ldc

Enclosures

cc: Bureau of Land Management
Grand County Assessor
J.L. Thompson

WOI1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR RE-LEASE BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER

2. NAME OF OPERATOR

Columbia Gas Development Corporation

3. ADDRESS OF OPERATOR

P.O. Box 1350, Houston, TX 77251-1350

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)

At surface

934' FNL & 1678' FEL

At proposed prod. zone

BHL: 950' FEL & 1900' FSL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

14 air miles WNW of Moab

10. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drig. unit lide, if any)

386'

15. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

2900'

16. NO. OF ACRES IN LEASE

1,560

19. PROPOSED DEPTH

9850'

17. NO. OF ACRES ASSIGNED

TO THIS WELL

640

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5821.2' Gr.

22. APPROX. DATE WORK WILL START*

1st Quarter, 1993

24.

SIGNED

Wendy L. DeDimeaux

TITLE

Regulatory Coordinator

DATE 12/28/92

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

/S/ WILLIAM C. STRINGER

TITLE

Assistant District Manager
for Minerals

DATE

MAR 5 1993

CONDITIONS OF APPROVAL, IF ANY:

FLARING OR VENTING OF
GAS IS SUBJECT TO NTL 4-A
Dated 1/1/80

CONDITIONS OF APPROVAL ATTACHED

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Columbia Gas Development Corporation
Kane Springs Federal 25-19-34-1
Lease U-65971
NWNE Section 34, T25S, R19E
Grand County, Utah

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that Columbia Gas Development Corporation is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by CO 0356 (Principal - Columbia Gas Development Corporation) via surety consent as provided for in 43 CFR § 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR § 3106.7-2 continuing responsibility are met.

This permit will be valid for a period of one year from the date of approval. After permit termination, a new application must be filed for approval.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR 3100), Onshore Oil and Gas Orders, lease terms, notices to lessees, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to field representatives to insure compliance.

A. DRILLING PROGRAM

1. Daily drilling and completion progress reports shall be submitted to the District Office on a weekly basis.
2. The 5000 psi (5M) BOP system proposed to be used below the intermediate shoe is acceptable. The 2M BOP system proposed to be used down to the intermediate casing setting depth is acceptable. Both BOP systems will be consistent with API RP 53 and Onshore Oil and Gas Order No. 2. Blowout preventer controls will be installed prior to drilling the surface casing shoe and will remain in use until the well is completed or abandoned.
3. Centralizers shall be placed, at a minimum, on the bottom three joints of each casing string.
4. Cement shall be circulated back to surface when setting the surface casing.

When determining the final cement volume to be used in setting the production string, the caliper log shall be inspected and an appropriate excess of cement shall be used to insure that cement reaches into the intermediate casing. If BLM is confident that an adequate volume of cement was used, a CBL/CET will not be required.

5. An equivalent mud weight test shall be run on the intermediate casing string.
6. If a gas meter run is constructed, it will be located on lease, within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and will be buried downstream of the meter until it leaves the pad. Meter runs will be housed and/or fenced. The gas meter shall be calibrated prior to first sales and shall be calibrated quarterly thereafter. All gas production and measurement shall comply with the provisions of 43 CFR § 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3. Any deviation from this will require specific approval.
7. Operations authorized by this permit shall not be suspended for more than 30 days without prior approval. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.
8. The lateral section of the borehole shall not deviate more than 5° from the proposed azimuth.

B. SURFACE USE PLAN

1. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized officer. Within five working days the authorized officer will inform the operator as to:
 - whether the materials appear eligible for the National Register of Historic Places;
 - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
 - a timeframe for the authorized officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the authorized officer are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the authorized officer will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The authorized officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the authorized officer that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. All wells, whether drilling, producing, suspended, or abandoned, will be identified in accordance with 43 CFR 3162.6. When the well is plugged and abandoned, a plate with the information required in 43 CFR 3162.6 will be installed over the wellbore to lie horizontal below the ground surface.
3. Surface disturbance and vehicular travel will be limited to the approved location and access route. Any additional area needed will be approved in advance. Surface material will not be placed on the access road or location without prior BLM approval.
4. In addition to procedures identified in the APD, these requirements will be followed during construction and reclamation of the reserve pit:
 - a. The reserve pit will be lined with bentonite unless specifications for an alternate method of lining are approved by the authorized officer.

Bentonite will be spread to a uniform depth over the reserve pit at an application rate of not less than 5 pounds per square foot. No bulk bentonite will be distributed when winds exceed 10 mph, and no sacked bentonite will be spread

when winds exceed 20 mph unless approved in writing by the authorized officer.

After bentonite has been uniformly applied over the reserve pit, the bentonite will be thoroughly mixed with the underlying soil to a depth of 4 inches. Disking, rototilling, or a similar technique will be used to mix the bentonite with the soil. A minimum of two passes at right angles to each other will be made at the full depth of mixing.

If a synthetic liner is used, liner will be designed and installed in such a manner to assure it will not be punctured during installation or drilling operations.

- b. Upon completion of drilling operations, the reserve pit will be de-watered. Depending on the conditions at the time of disposal, the waste water will be (a) disposed of off-site at an approved disposal facility, (b) reinjected with the appropriate Underground Injection Control Permit from the State Division of Oil, Gas and Mining with concurrent approval by the Bureau of Land Management, Moab District Office, or (c) allowed to evaporate.
- c. The remaining reserve pit solids will be tested prior to stabilization. At least three samples will be taken from different areas of the pit. These samples will be analyzed by an independent laboratory for salt properties (electrical conductivity, sodium adsorption ratio and exchangeable sodium percentage), heavy metal content and oil and grease content. The results of these tests will be provided to the Moab District Office within 30 days of analysis.
- d. The reserve pit contents will then be mixed with fly ash, kiln dust, or bentonite to stabilize the salt adhered to the cuttings. Quantities of the mixing agent will be sufficient to assure the physical properties of the stabilized pit are similar to the physical properties of the native subsoils.
- e. The mixed contents will be sampled and tested for leachability of salts and heavy metals. There will be a minimum of 5 samples taken from the mixed pit remains. The samples will come from each corner section of the pit and from the middle. These samples will also be analyzed by an independent laboratory. The results of this testing will be provided to the Moab District Office within 30 days of analysis.
- f. If a synthetic liner is used, the remaining liner material will be folded over the edges of the mixed contents of the pit.
- g. The mixed pit contents will be covered by a minimum of one foot of native subsoils. If required, a thicker application may be allowed to bring the top of this cap nearly up to grade. The pit will then be allowed to set up for a minimum of 5 days prior to additional work on the pit involving the bentonite cap.
- h. A bentonite cap will be applied to the top of the pit. The bentonite will be a

commercial grade and will be mixed with the native subsoils at the rate of 2-4 pounds per square foot of coverage. The cap will be at least 1 foot thick in the middle and grade to no less than 6 inches on the sides. The bentonite and subsoil mixture will be disked in to assure maximum effectiveness of the impervious cap. The cap will be crowned at the middle to allow proper drainage. The cap will extend at least 10 feet beyond the original pit boundaries to allow drainage away from the pit and prevent leaching of salts and heavy metals.

- i. The bentonite cap will then be covered with approximately 2 feet of subsoil and topsoil. The intent is to bring the topsoil and subsoil mixture including the cap slightly above grade with enough soil to allow for revegetation and compensate for settling.
 - j. The Grand Resource Area Office will be kept informed of the timetables for all operations described above so that they can be witnessed.
5. BLM will inspect the blooie pit design and misting system prior to drilling to ensure adequate measures will be implemented to reduce fugitive dust during air drilling operations.
 6. If drilling water is obtained from the Colorado River, "reasonable and prudent measures" will be utilized to prevent incidental take of fish when pumping water from the Colorado River channel. These measures include use of screening to cover the intake hose. The screen mesh will not exceed 1/8 inch during periods when young are known to drift (May 15 through July 30). During the remainder of the year, screen mesh will not exceed 1/4 inch. Intake hoses will not be placed in low-velocity portions of the river and water will be taken from fast current areas.
 7. No water or fluids will be disposed on the location or roads without prior BLM approval.
 8. At the end of drilling operations and prior to reclamation of the reserve pit, the fourth side of the pit will be fenced and the top of the pit will be covered with netting of one inch or less to prevent access by birds.
 9. A conference will be held with the Grand Resource Area prior to installing production facilities. The conference will be utilized to maximize the screening abilities of nearby ridges, vegetation and sandstone outcrops. The use of low-profile tanks or other low-profile equipment will be used if necessary to prevent equipment from being skylined on the horizon of the viewshed. Options for locating and designing the flare pit to minimize visual impacts from flaring will be reviewed.
 10. All production equipment over 15 feet high (including tanks, heater treaters, separators, pumping units) will be painted with two horizontal bands. The lower band will be a flat, nonreflective, earthtone color matching the surrounding soils. The upper band will be a flat, nonreflective, earthtone color matching the surrounding junipers. The division of colors will be on an undulating pattern.

11. During production, topsoil stockpiles will be spread over the reclaimed portions of the well pad, contoured and seeded. A portion of this topsoil would later be used for rehabilitation of the remaining portion of the well pad when it is abandoned.
12. All site security guidelines identified in 43 CFR 3162.7-5 regulations will be followed.
13. All loading lines and valves will be placed inside the berm surrounding the tank battery.
14. In the event the road is graveled or surfaced, the material will be removed prior to recontouring the surface for rehabilitation.
15. The disturbed area will be recontoured to replicate the natural slope, and the stockpiled topsoil will be spread over the recontoured area.
16. Prior to seeding, all disturbed areas will be scarified or ripped to a depth of 4 inches. The scarification will be perpendicular to the slope to intercept and retain runoff.
17. The area will be seeded during September, October, March, or at a time specified by the authorized officer using a pure live seed mixture as follows:

Indian Ricegrass	3 lbs/acre
Galleta	3 lbs/acre
Scarlet globemallow	1 lbs/acre
Lewis flax	1 lbs/acre
<u>Fourwing Saltbush</u>	<u>3 lbs/acre</u>
Total	11 lbs

If the seed is broadcast, the above rates will be doubled.

The site will be fenced to protect the plants from grazing until the density of perennial vegetation is similar to the surrounding areas.

18. The reseeded well pad will be fenced with 4 strands of barbed wire. The fence will be maintained until a vegetative cover is established to control erosion and to blend into the surrounding landscape, and then the operator will remove the fence.

C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, attached.

Building Location- Contact the Resource Area, Natural Resource Protection Specialist at least 48 hours prior to commencing construction of location.

Spud- The spud date will be reported to the Resource Area Office 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within 24 hours after spudding, regardless of whether spud was made with a dry hole digger or big rig.

Daily Drilling Reports- Daily drilling reports shall detail the progress and status of the well and shall be submitted to the District Office on a weekly basis.

Monthly Reports of Operations- In accordance with Onshore Oil and Gas Order No. 1, this well shall be reported on Minerals Management Service (MMS) Form 3160, "Monthly Report of Operations," starting the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with MMS.

Sundry Notices- There will be no deviation from the proposed drilling and/or workover program without prior approval from the Assistant District Manager. "Sundry Notices and Reports on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR § 3162.3-2. Safe drilling and operating practices must be observed.

Drilling Suspensions- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the Authorized Officer. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

Undesirable Events- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the Resource Area in accordance with requirements of NTL-3A.

Cultural Resources- If cultural resources are discovered during construction, work that might disturb the resources is to stop, and the Area Manager is to be notified.

First Production- Should the well be successfully completed for production, the Assistant District Manager, Minerals Division will be notified when the well is placed in producing status. Such notification may be made by phone, but must be followed by a sundry notice or letter not later than five (5) business days following the date on which the well is placed into production.

A first production conference will be scheduled as soon as the productivity of the well is apparent. This conference should be coordinated through the Resource Area Office. The Resource Area Office shall be notified prior to the first sale.

Well Completion Report- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR § 3162.4-1. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. When requested, samples (cuttings and/or samples) will be submitted to the District Office.

Venting/Flaring of Gas- Gas produced from this well may not be vented/flared beyond an initial, authorized test period of 30 days or 50 MMcf, whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the authorized test period, the well may be ordered shut-in until the gas can be captured or approval to continue the venting/flaring as uneconomic is granted. In such case, compensation to the lessor shall be required for that portion of the gas that is vented/flared without approval and which is determined to have been avoidably lost.

Produced Water- Produced waste water may be confined to an unlined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted to the District Office for approval pursuant to NTL-2B.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the District Office for off-lease measurement, off-lease storage and/or commingling (either down-hole or at the surface).

Plugging and Abandonment- If the well is completed as a dry hole, plugging instructions must be obtained from the District Office prior to initiating plugging operations.

A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the Assistant District Manager, Minerals Division within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR § 3162.6. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the Area Manager or his representative, or the appropriate surface managing agency.

TABLE 1

NOTIFICATIONS

Notify Jack Johnson, Rich McClure or Lynn Jackson of the Grand Resource Area in Moab, Utah, at (801) 259-8193 for the following:

2 days prior to commencement of dirt work, construction and reclamation;

1 day prior to spudding;

50 feet prior to reaching surface casing depth;

3 hours prior to testing BOPE

If the person at the above number cannot be reached, notify the Moab District Office at (801) 259-6111. If unsuccessful, notify one of the people listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab District Office, Branch of Fluid Minerals at (801) 259-6111. If approval is needed after work hours, you may contact the following:

Eric Jones, Petroleum Engineer	Office: (801) 259-6111
	Home: (801) 259-2214

CONDITIONS OF APPROVAL
FOR THE SURFACE USE PROGRAM OF THE
APPLICATION FOR PERMIT TO DRILL

COMPANY:	Columbia Gas Development Corporation
WELL NAME & NUMBER:	Kane Springs Federal #25-19-34-1
LEASE NO.:	U-53624
LOCATION:	934' FNL & 1678' FEL Sec. 34 - T25S - R19E Grand County, Utah
SURFACE OWNERSHIP:	Bureau of Land Management

CONFIDENTIAL

NOTIFICATION REQUIREMENTS

Notify Elmer Duncan of the Grand Resource Area, at (801)259-8193 for the following:

- ♦ 2 days prior to commencement of dirt work, construction or reclamation;
- ♦ 1 day prior to spudding;
- ♦ 50 feet prior to reaching surface and intermediate casing depths;
- ♦ 3 hours prior to testing BOP's;
- ♦ 12 hours prior to reaching kickoff point depth;
- ♦ 1 day prior to pressure testing of surface casing.
- ♦ 24 hours prior to closing the reserve pit.

Notify the Moab District Office, Branch of Fluid Minerals at (801)259-6111 for the following:

No well abandonment operations will be commenced without the prior approval of the Assistant District Manager, Minerals Division. In the case of newly drilled dry holes, and in emergency situations, verbal approval can be obtained by calling the following individual:

Eric Jones, Petroleum Engineer	Office: (801)259-6111
	Home: (801)259-2214

If unable to reach the above individual including weekends, holidays or after hours please call the following:

Lynn Jackson,	
Chief, Branch of Fluid Minerals	Office: (801)259-6111
	Home: (801)259-7990

24 HOURS ADVANCE NOTICE IS REQUIRED FOR ALL ABANDONMENTS

ONSITE DATE: 11/23/92

THIRTEEN POINT SURFACE USE PROGRAM

MULTIPOINT REQUIREMENTS TO ACCOMPANY APD

1. EXISTING ROADS

- A. Existing road and location in relation to location submitted on Exhibit "A".
- B. From Moab, Utah:

Travel North on 191 for approx. 10.9 miles. Turn left onto Highway 313 & travel approx. 11 miles. Turn left onto access road, go 0.1 to wellsite.
- C. Description of roads in area: Hwy 191 and 313 are all weather asphalt. The access road will be constructed of native material.

2. PLANNED ACCESS ROADS

- A. Length:

Proposed access will be newly constructed road approximately 0.1 miles in length.
- B. Width:

For drilling operations, maximum total width of the dirt road will be 35 feet (will include travel surface, spoil, and ditches).

For production operations, roads will be upgraded as specified in the BLM's Surface Operating standards for Oil and Gas Exploration and Development Operations.
- C. Maximum Grades:

At grade.
- D. Turnouts:

As needed.

E. Drainage Design:

For drilling operations, flat blading of native material. For production operations, surface will be upgraded to twenty foot wide travel surface, crowned, with ditches (as per BLM's Surface Operating Standards for Oil and Gas Exploration and Development) and continuously maintained. Culverts will be installed at all drainages where needed.

F. Location and size of culverts and/or bridges, and brief description of any major cuts and fills:

Culverts may be needed at turnoff from Long Canyon Road to two track jeep road. Size of culverts will be coordinated with the appropriate County and BLM representatives.

G. Surface Material Source:

For drilling operations, native materials. For production operations, as per BLM's Surface Operating Standards for Oil and Gas Exploration and Development.

H. Necessary gates, cattleguards, or fence cuts and/or modification to existing facilities:

None. All heavy vehicle travel will be confined to existing access road.

I. Notification will be given to the Bureau of Land Management, District Office, with sufficient lead time, prior to the upgrade of access road and drill pad.

Access and location under the jurisdiction of the Bureau of Land Management.

J. Columbia Gas Development Corporation will provide Dirt Contractor with necessary maps, pad and road construction plans.

3. LOCATION OF EXISTING WELLS

Within a one mile radius of this proposed well there is one producing well:

Columbia Gas Development Corporation's
Kane Springs Federal #27-1

The following non-producing oil wells are within a one mile radius of the site:

Columbia Gas Development Corporation's
Kane Springs Federal #28-1 (Temp. Abandoned)

Ensearch's
Mineral Canyon Federal #1-3 (Dry Hole)

Calvert Western's
Big Flat #6 (Dry Hole)

Pure's
Big Flat #5 (Plugged & Abandoned)

Huskey/Supron's
Well # 1-R (Dry Hole)

Within a one mile radius of this proposed well there are no known:

Water wells, disposal wells, injection wells,
monitoring wells or drilling wells.

4. LOCATION OF EXISTING AND PROPOSED FACILITIES

Notification will be given to the Bureau of Land Management, District Office, with sufficient lead time, prior to construction of production facilities.

A. If well is productive, new on-well pad facilities and lines will be submitted as "as built" under the following guidelines:

1. Tank battery and/or location will be surrounded by a dike of sufficient capacity to contain the contents of the largest vessel within the dike plus one day's production.

2. Facilities will be placed in cut as much as possible.
3. All internal combustion engines associated with production facilities will be equipped with noise reducing mufflers.
4. All permanent (on site for six months or longer) structures (including pumping units) constructed or installed will be painted Desert Tan which is one of the standard environmental colors as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within six months of installation. Facilities or equipment required to comply with O.S.H.A. regulations will be excluded.
5. Fire prevention and suppression requirements for operations on Federal lands will be followed as per Bureau of Land Management guidelines.
6. No permanent above ground pipelines will be installed between the wellhead and treater or between the treater and flare pit.
7. All spills (production water or oil) or pipeline breaks outside the diked area and spills of 10 BBL or more within the firewall will be reported immediately to the District office.

5. LOCATION AND TYPE OF WATER SUPPLY

All water brought onsite will be Moab city water.

Fresh water and salt water will be trucked by a local trucking company.

6. SOURCE OF CONSTRUCTION MATERIALS

No construction materials will be used other than native materials. Soil from cuts will be used in fills.

Firewalls will be covered with gravel and tank grade bands will be filled with gravel.

7. METHODS FOR HANDLING WASTE DISPOSAL

A. Methods and location of proposed safe containment and disposal of each type of waste material:

1. Drill cuttings will be deposited in either the blooie pit or the reserve pit. Cuttings from air drilling will be deposited into the blooie pit. The design (size and shape) of the blooie pit has been modified to minimize the visible dust generation. After switching to the mud system, cuttings will be deposited into the reserve pit.
2. Drilling fluids will be confined to mud tanks and reserve pit if necessary. At rig release, mud will be returned to supplier for storage.
3. Produced Water: While testing the well, all produced water will be contained in a storage tank. If well is a producer, a saltwater storage tank will be installed with tank battery.
4. Sewage will be either treated on-site using an approved treatment unit or disposed of according to county and state requirements in a portable chemical toilet or in a hole at least 15 deep excavated in the cut portion of the well pad.
5. Portable dumpsters or "trash trailers" will be used for all trash. All trash will be hauled offsite.
6. If a fresh water flow is encountered during the air drilling operation, the water may be used for dust control on the location and access roads, provided the following conditions are met.
 - a. The BLM will be notified of our intent to use the water for this purpose.
 - b. The Chloride content of the water will be 6060 PPM or less, which is essentially equivalent to or less than 10,000 mg/l Total Dissolved Solids. Water with higher Chloride content may be used for dust control with specific prior approval of the BLM.

- c. The water will be tested by an independent lab or mud engineer and the results of the analysis will be provided to the BLM.
- B. The reserve pit shall be constructed so as not to leak, break, or allow discharge. The reserve pit will be inspected by BLM personnel during and after construction. Reserve pit will be lined with a synthetic liner consisting of a bentonite/soil mixture of 5 pounds of bentonite per square foot mixed to a depth of 8 inches, as specified by the BLM. An apron consisting of 12 mil plastic liner material will be placed under the mud tanks.

The blooie pit will be lined with a 12 mil plastic liner.

- C. After first production, produced waste water will be confined to a lined pit or storage tank for a period not to exceed ninety (90) days. During the ninety day period, in accordance with NTL-2B, an application for approval of permanent disposal method and location, along with required water analysis, shall be submitted for the authorized officer's approval.

8. ANCILLARY FACILITIES

No camp, airstrip or other facility will be built during the drilling of this well. Up to five trailers will be on location as temporary quarters for rig personnel during drilling operations.

9. WELL SITE LAYOUT

- A. See attachment for the Well Site Layout showing the following:

Substructure, Engine, Mud pumps, Mud tanks, Diesel tank, Water Tank, Boiler, Light plant, Dog house, Bunk house, Pipe racks, Catwalk, Choke manifold, Accumulator, Derrick stand, Wireline, Mud mixer, Change house, Trailers, Trash bin or trailer, parts house, Mud manifold, Mud storage, Desander/Desilter, Winterizing or parts tub.

Also attached is a cross section diagram showing cuts & fills in relation to existing topography.

The location will be as small as feasible but must accommodate the drilling rig and associated equipment with allowance made for future completion and production equipment.

No topsoil stripping will be done when soils are moisture saturated to a depth of 3 inches, or frozen below stripping depth.

B. Fencing requirements:

All pits will be fenced according to the following minimum standards:

1. 30-inch net wire shall be used with at least one strand of barbed wire on top of the net wire (barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence).
2. The net wire shall be no more than 2-inches above the ground. The barbed wire shall be 3-inches above the net wire. Total height of fence shall be 42-inches.
3. Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
4. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than 16 feet.
5. All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The reserve pit fencing will be on three sides during drilling operations and on the fourth side when the rig moves off the location. Pits will be fenced and maintained until clean-up.

10. PLANS FOR RESTORATION OF SURFACE

A. Production Location

1. Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, and materials not required for production. Trash, junk and debris will be removed.
2. Immediately upon well completion, any hydrocarbons on the pit shall be removed in accordance with 43 CFR Part 3162.7 (1).
3. The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed as soon as feasible upon cessation of use.

Before any dirt work takes place, the reserve pit must be sufficiently dry and any trash or debris will be removed and properly disposed of.

4. Seed mixtures to be used in rehabilitation will be provided by the BLM District Office. Seed mixtures will be certified weed free and seeding will be accomplished during the spring or fall. Seed tags will be submitted to the area manager within 30 days of seeding.
5. Topsoil stockpiles will be seeded if well is productive. Seeding will be performed at time of reserve pit closure.
6. Site rehabilitation will be completed within six (6) months, weather permitting. Before any production facilities are constructed, a site reclamation plan will be submitted to the District Office for all areas not required for production facilities.

B. Dry Hole/Abandoned Location

1. At such time as well is plugged and abandoned, the operator shall submit a report of abandonment and the BLM will attach the appropriate surface rehabilitation conditions of approval.

2. The location will be rehabilitated within six (6) months, weather permitting, from the date the well is plugged.

11. SURFACE OWNERSHIP

Surface location and access roads are owned by the United States of American under jurisdiction of the Bureau of Land Management.

12. OTHER INFORMATION

- A. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archeological sites, or for collecting artifacts. If historic or archeological materials are uncovered during construction, the operator will immediately stop work that further disturb such materials, and contact the authorized officer. Columbia Gas Development Corporation will comply with the requirements set forth by the BLM Surface Use Stipulations.
- B. Columbia Gas Development Corporation has a One Hundred and Fifty Thousand (150,000) dollar Nationwide Bond, copy attached.
- C. Drilling rigs and/or equipment used during drilling operations on this wellsite will not be stacked or stored on Federal Lands after the conclusion of drilling operations or at any other time without BLM authorization. However, if BLM authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.
- D. There will be no deviation from the proposed drilling program without prior approval from the District.
- E. Sundry Notice & Report on wells (Form 3160-5) will be

filed for approval of all changes of plans and other operations in accordance with 43 CFR 3164.

F. Dirt Contractor will be provided with an approved copy of the Surface Use plan.

G. Environmental Impacts.

1. Setting is approximately 14 miles WNW of Moab, Utah.
2. Surface disturbance will be approximately 2.1 acres during the drilling phase and approximately 2.0 acres in the completion/production phase. The affected area has an estimated vegetation coverage of 5 to 10%. The topsoil will be replaced during abandonment procedures and reseeded.

Surface impact will be temporary with no residual impacts. The surface location was moved as a result of the onsite meeting to reduce the surface disturbance.

3. Visual impacts will be more prominent during the drilling phase. The most equipment on site, including the drilling rig will be visible from Hwy 313 for approximately 50 days.

If the well is successful and production facilities are installed, some or all of the equipment will be visible. To the extent feasible, this impact will be mitigated by equipment placement and painting (See 4.A.4 of this Plan).

4. Audible impacts will be the greatest during the drilling and completion phases. Engine noise will be noticeable up to 3/4 mile during the drilling operations (estimated 50 days) and a 1/4 mile during the completion operations (estimated 10 days).
5. Particulate impacts will be temporary and local if dry soil conditions exist during construction and heavy traffic periods. Fugitive dust will be controlled by watering the road and location, as

necessary, during construction and periods of heavy traffic.

6. Recreational impacts are anticipated to be minimal. It will require approximately 44 truckloads to move the drilling rig in and the same number to move the rig out. Anticipated increased traffic other than moving the rig is 10 to 15 more vehicles per day during the drilling and 5 to 10 more vehicles per day during the completion. Increased traffic during production will be one auto and three trucks per day until a pipeline is installed. Other than some minimal increased traffic, there should be no other recreational impacts.

13. LESSEE'S OR OPERATOR REPRESENTATIVE AND CERTIFICATION

Representative:

Columbia Gas Development Corporation
P. O. Box 1350
Houston, Texas 77251-1350
713/871-3400

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved plan of operations, and any applicable Notice to Lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to insure compliance.

CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which currently exist; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Columbia Gas Development Corporation and its contractors and subcontractors in conformity with this APD package and the terms and conditions under which it is approved. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application, with bond coverage being provided under BLM Bond # U-391050-16RR.

This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

12/28/92
DATE

Richard A. Spell
Richard A. Spell
Manager,
Environmental, Safety & Regulatory
(713) 871-3400

Columbia Gas Development Corporation
Kane Springs Federal 25-19-34-1
Lease U-65971
NWNE Section 34, T25S, R19E
Grand County, Utah

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that Columbia Gas Development Corporation is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by CO 0356 (Principal - Columbia Gas Development Corporation) via surety consent as provided for in 43 CFR § 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR § 3106.7-2 continuing responsibility are met.

This permit will be valid for a period of one year from the date of approval. After permit termination, a new application must be filed for approval.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR 3100), Onshore Oil and Gas Orders, lease terms, notices to lessees, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to field representatives to insure compliance.

A. DRILLING PROGRAM

1. Daily drilling and completion progress reports shall be submitted to the District Office on a weekly basis.
2. The 5000 psi (5M) BOP system proposed to be used below the intermediate shoe is acceptable. The 2M BOP system proposed to be used down to the intermediate casing setting depth is acceptable. Both BOP systems will be consistent with API RP 53 and Onshore Oil and Gas Order No. 2. Blowout preventer controls will be installed prior to drilling the surface casing shoe and will remain in use until the well is completed or abandoned.
3. Since the expected pressure approaches the working pressure of the BOPE system, a remote kill line, tested to stack pressure, shall run unobstructed to the outer edge of the substructure.
4. Centralizers shall be placed, at a minimum, on the bottom three joints of each casing string.
5. Cement shall be circulated back to surface when setting the surface casing.

When determining the final cement volume to be used in setting the production string, the caliper log shall be inspected and an appropriate excess of cement shall be used to insure that cement reaches into the the intermediate casing. If BLM is confident that an adequate volume of cement was used, a CBL/CET will not be required.

6. An equivalent mud weight test shall be run on the intermediate casing string.
7. If a gas meter run is constructed, it will be located on lease, within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and will be buried downstream of the meter until it leaves the pad. Meter runs will be housed and/or fenced. The gas meter shall be calibrated prior to first sales and shall be calibrated quarterly thereafter. All gas production and measurement shall comply with the provisions of 43 CFR § 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3. Any deviation from this will require specific approval.
8. Operations authorized by this permit shall not be suspended for more than 30 days without prior approval. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.
9. The lateral section of the borehole shall not deviate more than 5° from the proposed azimuth.

C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, attached.

Building Location- Contact the Resource Area, Natural Resource Protection Specialist at least 48 hours prior to commencing construction of location.

Spud- The spud date will be reported to the Resource Area Office 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within 24 hours after spudding, regardless of whether spud was made with a dry hole digger or big rig.

Daily Drilling Reports- Daily drilling reports shall detail the progress and status of the well and shall be submitted to the District Office on a weekly basis.

Monthly Reports of Operations- In accordance with Onshore Oil and Gas Order No. 1, this well shall be reported on Minerals Management Service (MMS) Form 3160, "Monthly Report of Operations," starting the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with MMS.

Sundry Notices- There will be no deviation from the proposed drilling and/or workover program without prior approval from the Assistant District Manager. "Sundry Notices and Reports on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR § 3162.3-2. Safe drilling and operating practices must be observed.

Drilling Suspensions- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the Authorized Officer. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

Undesirable Events- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the Resource Area in accordance with requirements of NTL-3A.

Cultural Resources- If cultural resources are discovered during construction, work that might disturb the resources is to stop, and the Area Manager is to be notified.

First Production- Should the well be successfully completed for production, the Assistant District Manager, Minerals Division will be notified when the well is placed in producing status. Such notification may be made by phone, but must be followed by a sundry notice or letter not later than five (5) business days following the date on which the well is placed into production.

A first production conference will be scheduled as soon as the productivity of the well is apparent. This conference should be coordinated through the Resource Area Office. The Resource Area Office shall be notified prior to the first sale.

Well Completion Report- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR § 3162.4-1. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. When requested, samples (cuttings and/or samples) will be submitted to the District Office.

Venting/Flaring of Gas- Gas produced from this well may not be vented/flared beyond an initial, authorized test period of 30 days or 50 MMcf, whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the authorized test period, the well may be ordered shut-in until the gas can be captured or approval to continue the venting/flaring as uneconomic is granted. In such case, compensation to the lessor shall be required for that portion of the gas that is vented/flared without approval and which is determined to have been avoidably lost.

Produced Water- Produced waste water may be confined to an unlined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted to the District Office for approval pursuant to NTL-2B.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the District Office for off-lease measurement, off-lease storage and/or commingling (either down-hole or at the surface).

Plugging and Abandonment- If the well is completed as a dry hole, plugging instructions must be obtained from the District Office prior to initiating plugging operations.

A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the Assistant District Manager, Minerals Division within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR § 3162.6. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the Area Manager or his representative, or the appropriate surface managing agency.

TABLE 1

NOTIFICATIONS

Notify Jack Johnson, Rich McClure or Lynn Jackson of the Grand Resource Area in Moab, Utah, at (801) 259-8193 for the following:

2 days prior to commencement of dirt work, construction and reclamation;

1 day prior to spudding;

50 feet prior to reaching surface casing depth;

3 hours prior to testing BOPE

If the person at the above number cannot be reached, notify the Moab District Office at (801) 259-6111. If unsuccessful, notify one of the people listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab District Office, Branch of Fluid Minerals at (801) 259-6111. If approval is needed after work hours, you may contact the following:

Eric Jones, Petroleum Engineer	Office: (801) 259-6111
	Home: (801) 259-2214

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: COLUMBIA 43-019-31334

WELL NAME: KANE SPRINGS 25-19-34-1

Section 34 Township 25S Range 19E County GRAND

Drilling Contractor FARWEST

Rig # 6

SPUDDED: Date 3/22/93

Time 5:00 AM

How ROTARY

CONFIDENTIAL

Drilling will commence

Reported by WENDY DESMEREUX

Telephone # 1-713-871-3400

Date 3/22/93 SIGNED FRM

FAX COVER SHEET

COLUMBIA GAS DEVELOPMENT CORP.
P.O. BOX 1350
ONE RIVERWAY
HOUSTON, TX 77251

March 22, 1993

TO:	MR. R. J. FIRTH ✓
COMPANY:	STATE OF UTAH; OIL, GAS & MINING
LOCATION:	SALT LAKE CITY, UTAH

NUMBER OF PAGES:	cover + 43
-------------------------	-------------------

FROM:	WENDY DESORMEAUX REGULATORY COORDINATOR
LOCATION:	HOUSTON
PHONE NUMBER:	(713) 871-3482
FAX NUMBER:	(713) 871-3485

COMMENTS:	<p>MR. FIRTH,</p> <p>FOLLOWING IS THE NOTIFICATION OF SPUD FOR THE KANE SPRINGS 25-19-34-1. THE ORIGINAL WILL BE SENT AIRBORNE EXPRESS TODAY.</p> <p><i>Wendy Desormeaux</i></p>
------------------	--

COLUMBIA GAS
Development

March 22, 1993

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T25S-R19E
Grand County, Utah

Dear Mr. Firth:

Please find attached the notification of spud and activity report to date for the above-referenced well. Also enclosed is the Entity Action Form for this well.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

A handwritten signature in cursive script, appearing to read "Wendy G. DesOrmeaux".

Wendy G. DesOrmeaux
Regulatory Coordinator

Form 3160-5
(June 1990)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposalsFORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

5. Lease Designation and Serial No.

U-53624 (BHL)

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

Kane Springs Federal Unit

8. Well Name and No.

Kane Springs Fed. 25-19-34

9. API Well No.

43-019-31334

10. Field and Pool, or Exploratory Area

Bartlett Flat

11. County or Parish, State

Grand County, Utah

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Columbia Gas Development Corporation

3. Address and Telephone No.

P. O. Box 1350, Houston, Texas 77251-1350 (713) 871-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934' FNL & 1678' FEL, Sec. 34-T25S-R19E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐
- Notice of Intent
-
- ☒
- Subsequent Report
-
- ☐
- Final Abandonment Notice

TYPE OF ACTION

- ☐
- Abandonment
-
- ☐
- Recompletion
-
- ☐
- Plugging Back
-
- ☐
- Casing Repair
-
- ☐
- Altering Casing
-
- ☒
- Other
- Notification of Spud

- ☐
- Change of Plans
-
- ☐
- New Construction
-
- ☐
- Non-Routine Fracturing
-
- ☐
- Water Shut-Off
-
- ☐
- Conversion to Injection
-
- ☐
- Dispose Water

& Weekly Activity

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

The above-referenced well was spud on 3/19/93 @ 0500 hrs.

See attached for weekly activity report.

14. I hereby certify that the foregoing is true and correct

Signed

Wendy A. Dolan

Title

Regulatory Coordinator

Date

3/22/93

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See instruction on Reverse Side

Kane Springs Federal #25-19-34-1

3/19/93 Spud well @ 0500 hrs. Survey and drill to 400'.
Last Survey - 342' - 1/4°

3/20/93 Drill and survey. Last Survey 647' - 3/4°. Ran
13-3/8", 61", K-55 BUTT casing. Set at 664'. TIH
w/DP & tag-in adaptor. Fill csg w/water, pressure
to 500# on DP/csg annulus. Pump preflush.

3/21/93 RU Dowell. Cement w/150 sx 35:65 Pozl G + 6% D-20
+ 10# sk D-42 + 1/4# sk D-29 + 3% S-1 & 200 sks 'G'
+ 1/4# sk D-29 + 2% S-1. Displaced w/12 bbls fresh
wtr. Plug dn @ 0545 w/900# - plug held. Run 100'
1" pipe in conductor & 13-3/8" annulus. Pump 236
sx Cl G + 3% CaCl. WOC. Cut conductor, 13-3/8"
csg. Heat head, weld on same. Test head to 1100#
- held 15 min.



RECEIVED

MAR 23 1993

DIVISION OF
OIL GAS & MINING

March 22, 1993

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T25S-R19E
Grand County, Utah

Dear Mr. Firth:

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Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

A handwritten signature in cursive script that reads 'Wendy G. DesOrmeaux'.

Wendy G. DesOrmeaux
Regulatory Coordinator

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Columbia Gas Development Corporation

3. Address and Telephone No.

P. O. Box 1350, Houston, Texas 77251-1350 (713) 871-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934' FNL & 1678' FEL, Sec. 34-T25S-R19E

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Kane Springs Federal Unit

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Kane Springs Fed.25-19-34-

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Bartlett Flat

11. County or Parish, State

Grand County, Utah

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Notification of Spud
& Weekly Activity
- ☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

The above-referenced well was spud on 3/19/93 @ 0500 hrs.

See attached for weekly activity report.

RECEIVED

MAR 23 1993

DIVISION OF
OIL GAS & MINING

14. I hereby certify that the foregoing is true and correct

Signed

Wendy L. Doolittle

Title

Regulatory Coordinator

Date

3/22/93

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Kane Springs Federal #25-19-34-1

3/19/93 Spud well @ 0500 hrs. Survey and drill to 400'.
Last Survey - 342' - 1/4°

3/20/93 Drill and survey. Last Survey 647' - 3/4°. Ran
13-3/8", 61", K-55 BUTT casing. Set at 664'. TIH
w/DP & tag-in adaptor. Fill csg w/water, pressure
to 500# on DP/csg annulus. Pump preflush.

3/21/93 RU Dowell. Cement w/150 sx 35:65 Pozl G + 6% D-20
+ 10# sk D-42 + 1/4# sk D-29 + 3% S-1 & 200 sks 'G'
+ 1/4# sk D-29 + 2% S-1. Displaced w/12 bbls fresh
wtr. Plug dn @ 0545 w/900# - plug held. Run 100'
1" pipe in conductor & 13-3/8" annulus. Pump 236
sx Cl G + 3% CaCl. WOC. Cut conductor, 13-3/8"
csg. Heat head, weld on same. Test head to 1100#
- held 15 min.

ENTITY ACTION FORM - DOGM FORM 6

OPERATOR Columbia Gas Development Corporation
ADDRESS P. O. Box 1350
Houston, Texas 77251-1350

OPERATOR CODE N5035

PHONE NO. 713, 871-3400

OPERATORS MUST COMPLETE FORM UPON SPUDDING NEW WELL OR WHEN CHANGE IN OPERATIONS OR INTERESTS NECESSITATES CHANGE IN EXISTING ENTITY NUMBER ASSIGNMENT.

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
B A	99999	11180	43-019-31334	Kane Springs Federal	NW NE	34	25S	19E	Grand	3/19/93	3/19/93

COMMENTS: #25-19-34-1

) Establish Entity Number for new, single well. (unit well / Cone Creek PA "A" Added 3-30-93. Jec

--	--	--	--	--	--	--	--	--	--	--	--

COMMENTS:

--	--	--	--	--	--	--	--	--	--	--	--

COMMENTS:

--	--	--	--	--	--	--	--	--	--	--	--

COMMENTS:

--	--	--	--	--	--	--	--	--	--	--	--

COMMENTS:

RECEIVED

MAR 23 1993

DIVISION OF
OIL GAS & MINING

ACTION CODES: A - ESTABLISH NEW ENTITY FOR NEW WELL
B - ADD NEW WELL TO EXISTING ENTITY
C - RE-ASSIGN WELL FROM ONE EXISTING ENTITY TO ANOTHER EXISTING ENTITY
D - RE-ASSIGN WELL FROM ONE EXISTING ENTITY TO A NEW ENTITY
E - OTHER (EXPLAIN IN COMMENTS SECTION)
(SEE INSTRUCTIONS ON BACK OF FORM)

Wendy L. DeBenedictis
SIGNATURE

Regulatory Coord. 3/22/93
TITLE DATE



RECEIVED

MAR 31 1993

DIVISION OF
OIL GAS & MINING

March 29, 1993

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

**Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T258-R19E
Grand County, Utah**

Gentlemen:

Please find attached the weekly activity report for the above-referenced well.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

A handwritten signature in cursive script that reads 'Wendy G. DesOrmeaux'.

Wendy G. DesOrmeaux
Regulatory Coordinator

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.
U-53624 (BHL)

6. If Indian, Allottee or Tribe Name
NA

SUBMIT IN TRIPLICATE

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
Columbia Gas Development Corporation

3. Address and Telephone No.
P.O. Box 1350, Houston, TX 77251-1350 (713) 871-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934' FNL & 1678' FEL, Sec.34-T25S-R19E

7. If Unit or CA, Agreement Designation

Kane Springs Federal Ut.

8. Well Name and No.
Kane Springs Fed.25-19-34-1

9. API Well No.
43-019-31334

10. Field and Pool, or Exploratory Area
Bartlett Flat

11. County or Parish, State

Grand County, Utah

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

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☐ Altering Casing
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☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

SEE ATTACHED FOR WEEKLY ACTIVITY REPORT.

RECEIVED

MAR 31 1993

DIVISION OF
OIL GAS & MINING

CONFIDENTIAL

14. I hereby certify that the foregoing is true and correct

Signed Wendy A. Deslauriers

Title Regulatory Coordinator

Date 3/29/93

(This space for Federal or State office use)

Approved by _____

Title _____

Date _____

Conditions of approval, if any:

Kane Springs Federal #25-19-34-1

3/22/93 NU BOP's. Test Hydril, choke lines & related equipment - 2000# test, casing 2160#. Drill shoe @ 664'. Drill formation 664-777'. Survey @ 732' - 1°. POOH. PU BHA & 8" D.C.

3/23/93 Drill 777-940'. Survey 892' - 1/4°. Drill 940-1335'.

3/24/93 Drill 1335-2185'. Survey @ 1998' - 3/4°. Hole wet - c/o to air mist. Drlg 2185-2450'.

3/25/93 Drill 2450-2521'. Survey 2503' - "bullseye". Drlg 2521-3170'. Survey 2880' - 1/4°.

3/26/93 Drilling w/air mist 3170 - 3494'.

3/27/93 Drlg 3494-3735'. RU to drill w/aerated fluid. Drlg w/aerated fluid 3735-3758'. Drlg w/air mist 3758-3873'. Drlg w/aerated water 3873-3900'. Survey @ 3885'

3/28/93 Drlg 3900 - 4389'. Survey 4202' - 2-1/2°. Unload hole. POOH. LD BHA.

CONFIDENTIAL



RECEIVED

APR 07 1993

DIVISION OF
OIL GAS & MINING

April 5, 1993

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T25S-R19E
Grand County, Utah

Gentlemen:

Please find attached the weekly activity report for the above-referenced well.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

Wendy G. DesOrmeaux
Wendy G. DesOrmeaux
Regulatory Coordinator

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Columbia Gas Development Corporation

3. Address and Telephone No.

P. O. Box 1350, Houston, Texas 77251-1350 (713) 871-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934' VNL & 1678' FEL, Sec.34-T25S-R19E

5. Lease Designation and Serial No.

U-53624 (BHL)

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

Kane Springs Fed. Unit

Kane Springs Federal
25-19-34-1

9. API Well No.

43-019-31334

10. Field and Pool, or Exploratory Area

Bartlett Flat

11. County or Parish, State

Grand County, Utah

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

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☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Weekly Activity Report
☐ Change of Plans
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☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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SEE ATTACHED FOR WEEKLY ACTIVITY REPORT.

RECEIVED

APR 07 1993

**DIVISION OF
OIL GAS & MINING**

CONFIDENTIAL

14. I hereby certify that the foregoing is true and correct

Signed Wendy A. Seaneau

Title Regulatory Coordinator

Date 4/5/93

(This space for Federal or State office use)

Approved by _____
Conditions of approval, if any:

Title _____

Date _____

Kane Springs Federal #25-19-34-1

3/29/93 Circ & blow hole. RU csg crew. Ran 104 jts 9-5/8" K-55 LT&C 40# csg & 1jt 9-5/8" 40# CF95 LT&C. Casing set @ 4389'. TIH w/tag-in sub.

3/30/93 RU cementer. Cement w/101 sks Hilift + 10# sk D-42 + 3% D-44 +.2% D-46 & 135 sks 10-0 RFC + 10# sk D-42. Disp w/72 bbls wtr. Plug dn 1030 hrs w/1600#. Lead cement 101 sks, yield 3.73 cu.ft., 67 bbls mixed @ 11 ppg. Tail cmt 135 sks, yield 1.60 cu.ft., 38.5 bbls mixed @ 14.2 ppg. WOC. Cut csg & installed head. Test head. NU BOP's.

3/31/93 Test rams, choke & manifold, upper & lower Kelly cocks to 5000# - 15 min, Hydril to 2500#. Test witnessed by Jack Johnson - BLM. Set wear ring - RD testers. POOH. LD DP.

4/1/93 TIH, drill float collar, 40' cmt & shoe. Drill 4389-4394'. Test csg. Displace soapy wtr w/fresh wtr. Run leak-off test & press to 1660 - 15 min. Disp hole w/oil base mud. Drld 4394-4404'.

4/2/93 Drld 4404-4434'. Survey @ 4434' - 1-1/4°. Wash & ream 28' to btm. Drld 4434-4610'. MW 13.8

4/3/93 Drld 4610-4870'. Survey @ 4833' - 3-3/4°. Drld 4870-4883'. Build & pump slug. Drld 4883-4917'. MW 13.3

4/4/93 Drld & surveyed 4917-5131'. LS @ 5115' - 3°. MW 13.3

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APR 07 1993

DIVISION OF
OIL GAS & MINING

CONFIDENTIAL



RECEIVED

APR 14 1993

DIVISION OF
OIL GAS & MINING

April 12, 1993

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T25S-R19E
Grand County, Utah

Gentlemen:

Please find attached the weekly activity report for the above-referenced well.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

A handwritten signature in cursive script, reading 'Wendy G. DesOrmeaux'.

Wendy G. DesOrmeaux
Regulatory Coordinator

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. U-53624
2. Name of Operator Columbia Gas Development Corporation	6. If Indian, Allottee or Tribe Name N/A
3. Address and Telephone No. P.O. Box 1350, Houston, TX 77251-1350 (713) 871-3400	7. If Unit or CA, Agreement Designation Kane Springs Federal Unit
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 934' FNL & 1678' FEL of Sec.34-T25S-R19E	8. Well Name and No. KSF 25-19-34-1
	9. API Well No. 43-019-31334
	10. Field and Pool, or Exploratory Area Bartlett Flat
	11. County or Parish, State Grand County, Utah

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other <u>Weekly Activity Report</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

SEE ATTACHED FOR WEEKLY ACTIVITY REPORT.

RECEIVED

APR 14 1993

DIVISION OF
OIL GAS & MINING

CONFIDENTIAL

14. I hereby certify that the foregoing is true and correct

Signed

Wendy J. DeChameau

Title

Regulatory Coordinator

Date

4/12/93

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Kane Springs Federal #25-19-34-1

4/5/93 Drilled 5131-5460'. POOH, PU new bit, TIH. LS @ 5446' - 3°. MW 13.2

4/6/93 Drilled 5460-5667'. LS @ 5667' - 1-1/2°. MW 13.3

4/7/93 C/O rotating head rubber. Ream 48' to btm. Drilled 5667-6153'. LS @ 6153' - 2°.

4/8/93 Drilled 6153-6700'. POOH to csg shoe. LS 6484' - 2°. MW 13.5

4/9/93 Attempted to break circ @ shoe. Built & pumped LCM pill. Built volumes, cut mud wt to 10.5 ppg in pits.

4/10/93 Pump 10.5 ppg mud. Drilled 6700-6703'. Wait on RTTS & Dowell.

4/11/93 TIH & set RTTS @ 4332' - would not fill. POH to 3992'. Set RTTS - backside filled. RU Dowell. Mixed and pumped 365 sks 10-0, displaced w/235 bbls wtr. 68 bbls cmt in form, max psi 50#. Pumped 25 bbls in stages, form drank 3-3/4 bbls. Left 8 bbls in open hole - 90' cmt. WOC.

CONFIDENTIAL

RECEIVED

APR 14 1993

DIVISION OF
OIL GAS & MINING

COLUMBIA GAS
Development



April 19, 1993

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

**Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T25S-R19E
Grand County, Utah**

Gentlemen:

Please find attached the weekly activity report for the above-referenced well.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

Wendy G. DesOrmeaux
Regulatory Coordinator

RECEIVED

APR 22 1993

DIVISION OF
OIL, GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.

U-53624 (BHL)

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

Kane Springs Federal Unit

8. Well Name and No.

KaneSprings Fed. 25-19-34

9. API Well No.

43-019-31334

10. Field and Pool, or Exploratory Area

Bartlett Flat

11. County or Parish, State

Grand County, Utah

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Columbia Gas Development Corporation

3. Address and Telephone No.

P. O. Box 1350, Houston, TX 77251-1350

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934' FNL & 1678' FEL, Sec.34-T25S-R19E

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

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☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

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SEE ATTACHED FOR WEEKLY ACTIVITY REPORT.

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DIVISION OF
OIL GAS & MINING

14. I hereby certify that the foregoing is true and correct

Signed Wendy L. DeCineaux

Title Regulatory Coordinator

Date 4/19/93

(This space for Federal or State office use)

Approved by _____

Title _____

Date _____

Conditions of approval, if any:

Kane Springs Federal #25-19-34-1

Correction to 4/8/93 report: Drilled 6153 - 6700'. Lost full returns. POOH to csg shoe. LS 6484' - 2°. MW 13.5.

- 4/12/93 WOC. Pressure up down DP w/RTTS set @ 3992'. Pump into form w/110# 3 bbls. POOH. TIH w/RTTS & set @ 4384'. Test squeeze to 2100#. Bled to 2040 - held 15 min. EMW 14.3. POOH. Set RTTS @ 3992'. Pump 10 bbls H₂O 6 BPM @ 130#. POOH w/RTTS. Ran temp log & csg caliper. 5' vertical split @ 4000'. TIH w/bit to 6690' - tag up. POOH.
- 4/13/93 Build & spot 60 bbl LCM pill - 50#/bbl. Set RTTS @ 3590'. Fill backside w/H₂O. Cement w/270 sx 10-0 + additives @ 14.2 ppg - 80 bbls slurry. Had 50 bbls in formation @ 40# psi. Pumped 19 bbls in 3 stages. Pressure @ 640#. SD pumping. WOC.
- 4/14/93 Pressure up on csg 1300# - held. TIH to 3807' - tag cmt. Drilled cmt 3807 - 4004'. Test 1300# @ 3971' - held. Drld cmt 6690 - 6703, new formation 6703 - 6706'. Test @ 6648' - 1300# 15 min. - held. Displ hole w/12.9 oil mud. LD 19 jts DP out of string. TIH.
- 4/15/93 Install rotating head. Drlg 6706 - 6870'. Circ mud for gyro survey. Ran seeker survey. C&C for trip. POOH & logged. PU motor, MWD. TIH.
- 4/16/93 TIH to 6720'. Slide 6720-6969'. Check surface equip for 400# pump pressure loss. POOH looking for hole. PU BHA, chg stab & bend, jets & align. TIH. MW 12.7.
- 4/17/93 TIH to 4412'. Broke circ. All equip checked OK. TIH to 6969'. Drilled 6969 - 7202'. Built & pumped slug. LS 7162' -
- 4/18/93 POOH. C/O BHA. TIH to 6969'. Ream & wash 6969 - 7203'. Drill (slide) 7203-7228'. Drill (rotate) 7228 - 7237'. Work pipe - tight hole. Circ & raise MW to 13.6 ppg. Drill (rotate) 7237 - 7295'.

CONFIDENTIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

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U-53624 (BHL)

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

Kane Springs Federal Unit

8. Well Name and No.

KaneSprings Fed. 25-19-34-

9. API Well No.

43-019-31334

10. Field and Pool, or Exploratory Area

Bartlett Flat

11. County or Parish, State

Grand County, Utah

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Columbia Gas Development Corporation

3. Address and Telephone No.

P. O. Box 1350, Houston, TX 77251-1350

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934' FNL & 1678' FEL, Sec.34-T25S-R19E

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SEE ATTACHED FOR WEEKLY ACTIVITY REPORT.

RECEIVED

APR 22 1993

DIVISION OF
OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct

Signed

Wendy L. DeLimaux

Title

Regulatory Coordinator

Date

4/19/93

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Kane Springs Federal #25-19-34-1

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- 4/12/93 WOC. Pressure up down DP w/RTTS set @ 3992'. Pump into form w/110# 3 bbls. POOH. TIH w/RTTS & set @ 4384'. Test squeeze to 2100#. Bled to 2040 - held 15 min. EMW 14.3. POOH. Set RTTS @ 3992'. Pump 10 bbls H₂O 6 BPM @ 130#. POOH w/RTTS. Ran temp log & csg caliper. 5' vertical split @ 4000'. TIH w/bit to 6690' - tag up. POOH.
- 4/13/93 Build & spot 60 bbl LCM pill - 50#/bbl. Set RTTS @ 3590'. Fill backside w/H₂O. Cement w/270 sx 10-0 + additives @ 14.2 ppg - 80 bbls slurry. Had 50 bbls in formation @ 40# psi. Pumped 19 bbls in 3 stages. Pressure @ 640#. SD pumping. WOC.
- 4/14/93 Pressure up on csg 1300# - held. TIH to 3807' - tag cmt. Drilled cmt 3807 - 4004'. Test 1300# @ 3971' - held. Drld cmt 6690 - 6703, new formation 6703 - 6706'. Test @ 6648' - 1300# 15 min. - held. Displ hole w/12.9 oil mud. LD 19 jts DP out of string. TIH.
- 4/15/93 Install rotating head. Drlg 6706 - 6870'. Circ mud for gyro survey. Ran seeker survey. C&C for trip. POOH & logged. PU motor, MWD. TIH.
- 4/16/93 TIH to 6720'. Slide 6720-6969'. Check surface equip for 400# pump pressure loss. POOH looking for hole. PU BHA, chg stab & bend, jets & align. TIH. MW 12.7.
- 4/17/93 TIH to 4412'. Broke circ. All equip checked OK. TIH to 6969'. Drilled 6969 - 7202'. Built & pumped slug. LS 7162' -
- 4/18/93 POOH. C/O BHA. TIH to 6969'. Ream & wash 6969 - 7203'. Drill (slide) 7203-7228'. Drill (rotate) 7228 - 7237'. Work pipe - tight hole. Circ & raise MW to 13.6 ppg. Drill (rotate) 7237 - 7295'.

CONFIDENTIAL



RECEIVED

APR 26 1993

DIVISION OF
OIL GAS & MINING

April 26, 1993

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T25S-R19E
Grand County, Utah

Gentlemen:

Please find attached the weekly activity report for the above-referenced well.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

A handwritten signature in cursive script, reading "Wendy G. DesOrmeaux".

Wendy G. DesOrmeaux
Regulatory Coordinator

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.

U-53624

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

Kane Springs Federal Unit

8. Well Name and No.

KaneSprings Fed.#25-19-34-

9. API Well No.

43-019-31334

10. Field and Pool, or Exploratory Area

Bartlett Flat

11. County or Parish, State

Grand County, Utah

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Columbia Gas Development Corporation

3. Address and Telephone No.

P. O. Box 1350, Houston, TX 77251-1350 (713) 871-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934' FNL & 1678' FEL of Sec.34-T25S-R19E

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
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☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

SEE ATTACHED FOR WEEKLY ACTIVITY REPORT.

RECEIVED

APR 26 1993

DIVISION OF
OIL GAS & MINING

CONFIDENTIAL

14. I hereby certify that the foregoing is true and correct

Signed Wendy L. DeChavez

Title Regulatory Coordinator

Date 4/26/93

(This space for Federal or State office use)

Approved by _____

Conditions of approval, if any: _____

Title _____

Date _____

Kane Springs Federal #25-19-34-1

4/19/93 Drilled (slide & rotate) 7295 - 7545'. MW 13.8
* BOP Drill 2130 hrs - well secure in 52 seconds.

4/20/93 Slide & rotate 7545 - 7580'. CBU. Pull 8 stds.
Spot LCM pill @ 6700'. Pull & LD 6 jts DP. Slug
DP. POOH, LD motors & MWD. TIH to 4389 (full
dynamatic). Cut drilling line. Mix LCM pill in
surface mud. TIH. MW 14.0

4/21/93 TIH to 6872'. Circ, no fill. TIH to 7580, no
fill. CBU. Short trip, lost 4 bbls. CBU. POOH
to run 7" csg. RU csg crew, run 7" casing, full
returns. Set csg @ 7580'. MW 14.2

4/22/93 Rig up Dowell. Cement 7" csg w/30 bbls mudpush
spacer followed w/100 sks C1 G cement (20.5 bbls
mixed @ 10.8 yield 1.15 cu.ft/sk). Followed w/450
sks foam cmt mixed @ 10 ppg w/958 scf per bbl N₂.
Follow w/135 sks salt blend mixed @ 16.5 ppg, 22
bbls yield 1.12 cu.ft/sk. Displaced w/279 bbls oil
mud, plug down @ 1900 hrs w/1500# - float held. RD
Dowell, RU stack winches. Lift stack, set slips
w/175,000. Cut off 7" csg. ND BOP's, NU wellhead
B section. NU BOP's. MW 14.1

4/23/93 NU BOP. RU laydown crew. LD DP out of mouse hole.
LD Kelly & PU 3-1/2 kelly. RU 3-1/2" drill string.
MW 14.0 Last Shoe test 16.4 EMW @ 4389.

4/24/93 PU 3-1/2" DP spiral wate & DC. Circ & cond mud.
POOH. ND BOP's. Cut 2-1/2" off csg stub. Change
out tbg head - test 5000# for 10 min - okay. NU
BOP's. Change out pipe rams, upper & lower. MW
14.1

CONFIDENTIAL



May 4, 1993

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

**Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T258-R19E
Grand County, Utah**

Gentlemen:

Please find attached the weekly activity report for the above-referenced well.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

A handwritten signature in cursive script that reads "Wendy G. DesOrmeaux".

Wendy G. DesOrmeaux
Regulatory Coordinator

RECEIVED

MAY 06 1993

DIVISION OF
OIL, GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Columbia Gas Development Corporation

3. Address and Telephone No.

P.O. Box 1350, Houston, Texas 77251-1350 (713) 871-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934¹ FNL & 1678¹ FEL, Sec.34-T25S-R19E

5. Lease Designation and Serial No.

U-53624

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N/A

7. If Unit or CA, Agreement Designation

Kane Springs Federal Unit

8. Well Name and No.

Kane Springs Fed. 25-19-34-

9. API Well No.

43-019-31334

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Bartlett Flat

11. County or Parish, State

Grand County, Utah

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☐ Casing Repair
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☒ Other Weekly Activity

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☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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SEE ATTACHED FOR WEEKLY ACTIVITY REPORT.

RECEIVED

MAY 06 1993

DIVISION OF
OIL, GAS & MINING

CONFIDENTIAL

14. I hereby certify that the foregoing is true and correct

Signed

Wendy L. Desjardins

Title

Regulatory Coordinator

Date

5/4/93

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See instruction on Reverse Side

Kane Springs Federal #25-19-34-1

4/25/93 Fin changing out rams. Tested BOPE to 5000#, 15 min. Tested Hydril 2500#, 15 min. Witnessed by Jack Johnson, BLM. TIH to 6137' w/MWD. Logged lower portion of hole. Tagged float collar. Drld float collar. Pressure tested csg 2000#, 15 min - okay. Drld shoe @ 7580. Drlg @ 7584.

4/26/93 Drilled 7584-7585. Ran L.O.T. 17.9 EMW. Logged w/Sperry Sun. PU BHA. TIH. Drill (Slide HS).

4/27/93 Slide 7602 - 7641. Circ samples. Slide 7641 - 7658. Checked for flow - well flowing. Closed in, circulated and built mud weight. Gained total 16 bbls, max gas 5600 units. Slide 7658 - 7663. Circ & cond mud. POOH. MW 16.0

4/28/93 POOH. Changed out motors. Tested MWD. PU bit & TIH to 4648. Filled pipe. TIH. Washed & reamed 7602 - 7663. Gained 40 bbls in pit. Shut well in, circ thru choke & raise wt to 16.7, mud wt to 11.4 after trip. Drilled 7663 - 7720.

4/29/93 Drilled 7727 - 7729. Worked on pump. Gas 23800 units after downtime. Drilled 7729 - 7783'. Circ samples. Drilled 7783 - 7846'.

NOTE: 7748'- Conn gas 1440 units, mud cut 16.7 to 16.2
7844'- Conn gas 250 units, mud cut 17.0 to 16.84

4/30/93 Slide 5' TF30R 7846-7851'. CBU - Drlg break. Slide 57' TF20R 7851-7908'. Rotate 7908-7925'. Work pipe, tight hole. Pull 4 stds into csg. Monitor well. TIH. Rotate & slide 7925-7985'.

NOTE: 7973' - Conn gas 128 units, mud cut to 16.9
ST @ 7925' - ST gas 1250 units, mud cut to 15.8

5/1/93 Slide 7985-7987'. CBU. Pull 9 stds. TIH 5 stds & circ @ 7585'. 3200 units gas - mud cut 15.8. TIH to TD. CBU - raised wt to 17.5. POOH. LD motor, PU magnet 5". TIH to 7868'. PU Kelly, circ btms. Mud cut 17.5 to 9.3 - 4480 units gas.

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5/2/93

Circ thru choke. Washed from 7867-7987'. Circ gas out & mud wt back to 17.5. POOH. LD magnet, PU junk basket & 6" mill. TIH to 7580'. Circ & cond mud wt out 17.7. Losing returns, lost 30 bbls. WIR 7580 - 7987'. Circ & cond mud, wt cut to 16# w/1920 units. Reduced mud wt to 17.4 ppg.

5/3/93

Circ & cond mud. POOH w/mill & boot basket. PU bit. TIH. Circ & cond mud. Slug D.P. strap out. RU csg crew. Ran 420' perf liner 4-1/2" S-95, 13.5# csg & 226' non-perforated 4-1/2, S-95, 13.5# csg. TOL @ 7335.76'. PU hanger & make-up same.

CONFIDENTIAL



May 11, 1993

RECEIVED

MAY 14 1993

DIVISION OF
OIL, GAS & MINING

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T25S-R19E
Grand County, Utah

Gentlemen:

Please find attached the weekly activity report for the above-referenced well.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

A handwritten signature in cursive script that reads 'Wendy G. DesOrmeaux'.

Wendy G. DesOrmeaux
Regulatory Coordinator

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

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Use "APPLICATION FOR PERMIT—" for such proposals.

SUBMIT IN TRIPLICATE

RECEIVED

MAY 14 1993

DIVISION OF
OIL, GAS & MINING

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Columbia Gas Development Corporation

3. Address and Telephone No.

P. O. Box 1350, Houston, Texas 77251-1350 (713) 871-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934' FNL & 1678' FEL, Sec.34-T25S-R19E

5. Lease Designation and Serial No.

U-53624

6. If Indian, Allottee or Tribe Name

N/A

Unit or CA, Agreement Designation

Kane Springs Federal Ut.

8. Well Name and No.

Kane Springs Fed.25-19-34-1

9. API Well No.

43-019-31334

10. Field and Pool, or Exploratory Area

Bartlett Flat

11. County or Parish, State

Grand County, Utah

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

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- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

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☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

SEE ATTACHED FOR FINAL WEEKLY ACTIVITY REPORT.

14. I hereby certify that the foregoing is true and correct.

Signed

Wendy L. DeChamplain

Title

Regulatory Coordinator

Date

5/11/93

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Kane Springs Federal #25-19-34-1

5/4/93 TIH w/ 4-1/2", S-95, 13.5#, BTC liner. Set liner w/2600#, packer release @ 4400#. TOL @ 7335'. Circ & cond mud - wt. out 16.5, wt. in 17.5.

5/5/93 Circ & cond mud 17.5 to 17.6. TOH to 7190' - well flowing. SI well w/250 psi on DP. Built mud wt to 18.5 ppg. Monitor well - 18.5 in and out. TOH slowly with liner setting tool.

5/6/93 FOOH w/liner setting tool. Made up Baker Model 'DB' pkr w/baker seal bore ext, X-0 to 2-7/8" EUE 8R 6.5# x 10' pup jt, Otis 2-7/8" EUE 8R 'XN' Nip, 2-7/8" EUE 8R 6.5# pup jt & Baker 2-7/8" EUE 8R Wireline re-entry guide w/pump out plug. TIH slowly w/pkr assy.

5/7/93 Fill DP w/18.5 ppg mud. Press up to 2000 psi to begin setting pkr @ 7080' - pkr set okay. Circ & cond mud in wellbore to 14.8 ppg. TOO H & LD pkr setting assy. Set into pkr w/test seal unit @ 7080' - press tested same on annulus to 1000 psi for 20 minutes - okay. Change rams in BOP's. RU tbq testers.

5/8/93 Ran 2-7/8" tbq and tested to 5000 psi. Set into pkr @ 7080'. Spaced out w/2-7/8" pup jts and tested to 5000 psi. Set string into pkr @ 7080' w/1M tbq wt on pkr. RD csg/tbq crew & testers. ND BOP.

5/9/93 Install tree. Displaced mud w/CaCl₂ water. Set seals back in pkr w/12M tbq wt. NU tree. Test annulus to 1200 psi - held okay. SI well. Cleaning rig & rig tanks.

5/10/93 Fin cleaning mud tank and rig. Released rig @ 1630 hrs, 5-10-93.

CONFIDENTIAL

COLUMBIA GAS

Development

**RECEIVED**

MAY 19 1993

DIVISION OF
OF GAS & MINING

May 17, 1993

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T258-R19E
Grand County, Utah

Gentlemen:

Please find attached the weekly activity report for the above-referenced well.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

Wendy G. DesOrmeaux
Wendy G. DesOrmeaux
Regulatory Coordinator

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

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SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Columbia Gas Development Corporation

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P.O. Box 1350, Houston, Texas 77251-1350

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934' FNL & 1678' FEL, Sec.34-T25S-R19E

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U-53624

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Kane Springs Federal Unit

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Kane Springs Fed.25-19-34-

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☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water
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5/11/93 - 5/17/93 RD rig. WOW to move to Kane Springs Federal 20-1.

RECEIVED
MAY 19 1993
DIVISION OF
OIL GAS & MINING

14. I hereby certify that the foregoing is true and correct

Signed

Wendy L. DeLooney

Title

Regulatory Coordinator

Date

5/17/93

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
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Kane Springs Fed.25-19-34-

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RECEIVED

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DIVISION OF
OIL & GAS LEASING

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Signed

Wendy L. DeLooney

Title

Regulatory Coordinator

Date

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*See Instruction on Reverse Side



RECEIVED

MAY 20 1993

DIVISION OF
OIL, GAS & MINING

May 17, 1993

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1 43-019-31334
Sec. 34-T258-R19E
Grand County, Utah

Dear Mr. Firth:

Please find attached the Water Encountered During Drilling form (Form 7) for the above-referenced well.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

A handwritten signature in cursive script, reading "Wendy G. DesOrmeaux".

Wendy G. DesOrmeaux
Regulatory Coordinator

RECEIVED

MAY 20 1993

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
3 TRIAD CENTER, SUITE 350
SALT LAKE CITY, UT 84180-1203

DIVISION OF
OIL, GAS & MINING

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number Kane Springs Federal #25-19-34-1
Operator Columbia Gas Development Corp. Address P.O. Box 1350, Houston, TX 77251
Contractor Forwest Rig 6 Address Houston, Texas
Location NW 1/4 NE 1/4 Sec. 34 T. 25S R. 19E County Grand

Water Sands

	<u>Depth</u>	<u>Volume</u>	<u>Quality</u>
	From To	Flow Rate or Head	Fresh or Salty
1.	2185	Would not Flow	Salty
2.			
3.	Encountered saltwater at 2185' while air drilling. Changed over to foam air		
4.	mist to casing point @ 4389'		
5.			

(Continue on reverse side if necessary)

Formation Tops 1st Lime - 2167' Est.
Honaker Trail - 2615' Est.

Remarks

- NOTE: (a) Report on this form as provided for in Rule 806, Oil and Gas Conservation General Rules.
- (b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.



May 24, 1993

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

**Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T25S-R19E
Grand County, Utah**

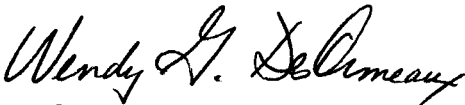
Gentlemen:

Please find attached a Sundry Notice reporting the beginning of testing and the movement of first oil for the above-referenced well. The weekly activity report is also attached.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION


Wendy G. DesOrmeaux
Regulatory Coordinator

RECEIVED

MAY 26 1993

DIVISION OF
OIL, GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Columbia Gas Development Corporation

3. Address and Telephone No.

P. O. Box 1350, Houston, Texas 77251-1350

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934' FNL & 1678' FEL, Sec.34-T25S-R19E

5. Lease Designation and Serial No.
U-53624

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA, Agreement Designation
Kane Springs Federal Unit

8. Well Name and No.

Kane Springs Fed.25-19-34-

9. API Well No.

43-019-31334

10. Field and Pool, or Exploratory Area

Bartlett Flat

11. County or Parish, State

Grand County, Utah

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other First Oil Sale

- ☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

DATE TESTING BEGAN:
AMOUNT OF OIL - 1st Load;
PURCHASER:
TRANSPORTER:

5/21/93
284 bbls
Amoco Production Company
D. B. Taylor

RECEIVED

MAY 26 1993

SEE ATTACHED FOR WEEKLY ACTIVITY REPORT.

DIVISION OF
OIL GAS & MINING

CONFIDENTIAL

14. I hereby certify that the foregoing is true and correct

Signed

Wendy A. DeGennaro

Title

Regulatory Coordinator

Date

5/24/93

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Kane Springs Federal #25-19-34-1

5/19/93 Organized service companies to clean up around well. Spotted test tanks. Set up service companies for test.

5/20/93 Finished leveling around well head. Installed guard grating over cellar. Cleaned and spotted frac tanks.

5/21/93 RU Norward Well testers. RU and began to flow test well.

5/22/93 Continued flow testing well. Moved first load of test oil - 284 bbls.

5/23/93 Continued flow testing well.



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JUN 01 1993

DIVISION OF
OIL, GAS & MINING

May 28, 1993

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Attn: R. J. Firth
355 W. N. Temple
3 Triad Center, Ste. 350
Salt Lake City, UT 84180-1203

Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T25S-R19E
Grand County, Utah

Gentlemen:

Please find attached a Sundry Notice with plats of the production facility layouts for the above-referenced well.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

A handwritten signature in cursive script, reading "Wendy G. DesOrmeaux".

Wendy G. DesOrmeaux
Regulatory Coordinator

UNITED STATES
DEPARTMENT OF THE INTERIOR
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U-53624

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

Kane Springs Federal Unit

8. Well Name and No.

KaneSprings Fed.25-19-34-1

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Bartlett Flat

11. County or Parish, State

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☒ Oil Well ☐ Gas Well ☐ Other

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Attached are plats of the Production Facility Layout for the above-referenced well.

RECEIVED

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DIVISION OF
OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct

Signed

Wendy L. DeLooney

Title

Regulatory Coordinator

Date

5/27/93

(This space for Federal or State office use)

Approved by

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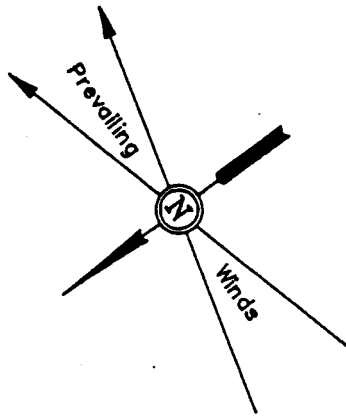
Date

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

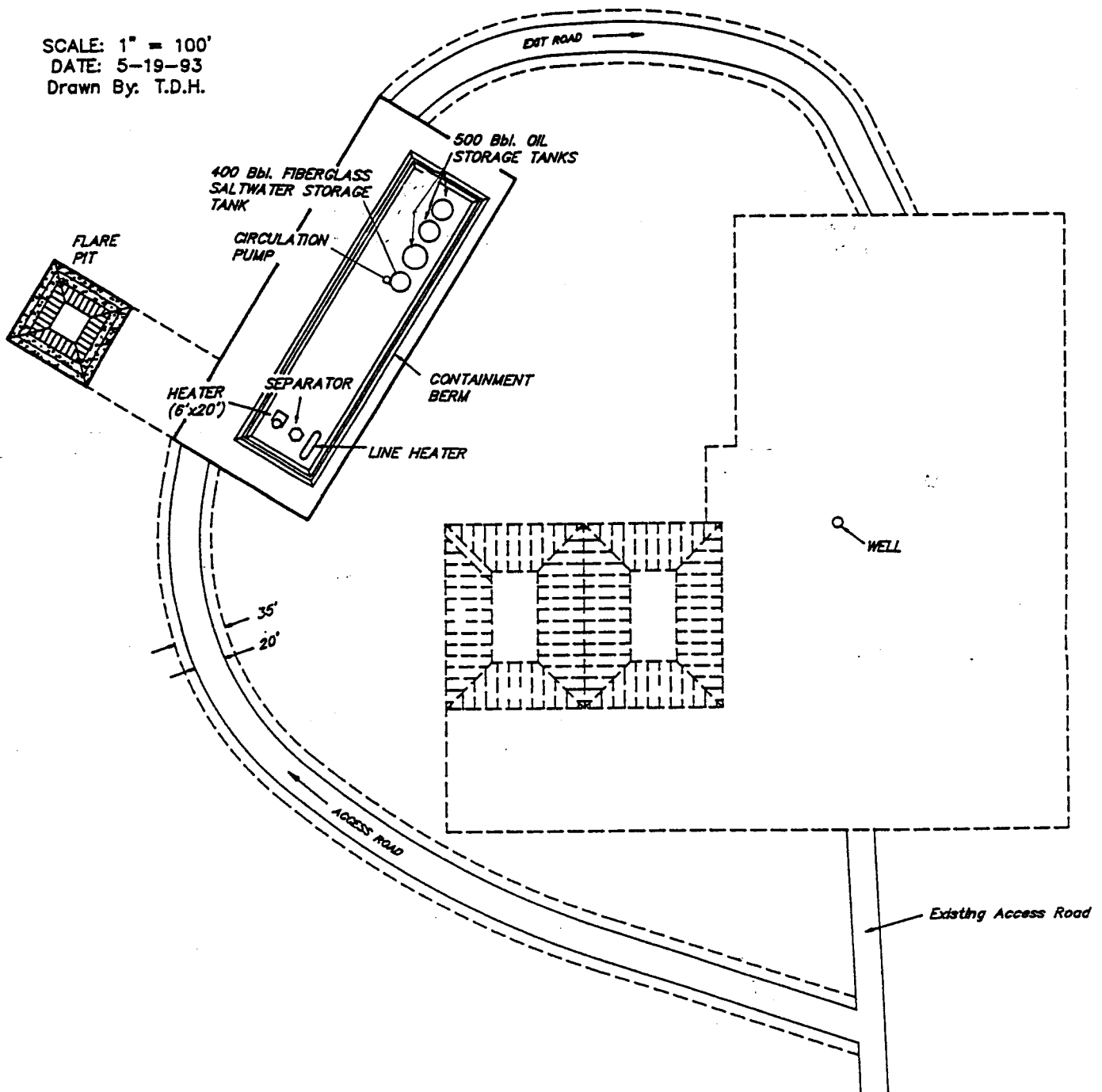
*See Instruction on Reverse Side

COLUMBIA GAS DEVELOPMENT CORP.

PRODUCTION FACILITIES LAYOUT FOR KANE SPRINGS FEDERAL #25-19-34-1 SECTION 34, T25S, R19E, S.L.B.&M.

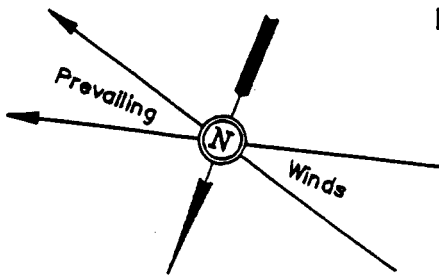


SCALE: 1" = 100'
DATE: 5-19-93
Drawn By: T.D.H.

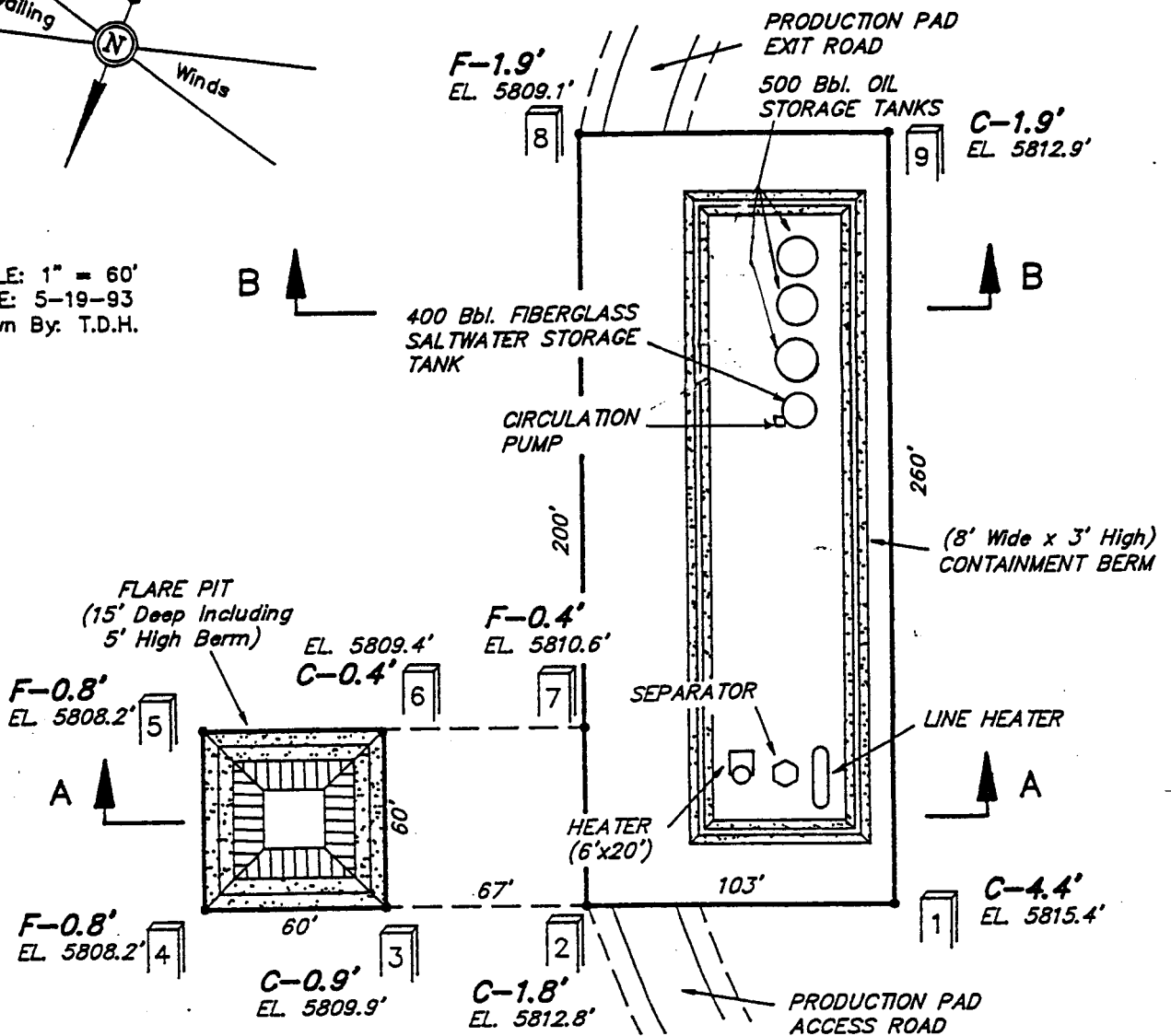


COLUMBIA GAS DEVELOPMENT CORP.

PRODUCTION FACILITIES LAYOUT FOR
KANE SPRINGS FEDERAL #25-19-34-1
SECTION 34, T25S, R19E, S.L.B.&M.



SCALE: 1" = 60'
DATE: 5-19-93
Drawn By: T.D.H.



SECTION B-B

SECTION A-A

NOTE:

Flare Pit has been
Terraced 2' Below
Production Facilities
Pad.

1" = 30'
CROSS
SECTION
SCALE
1" = 60'

APPROXIMATE YARDAGES ON
PRODUCTION FACILITY PAD

TOTAL CUT = 1,810 ± CU.YDS.
TOTAL FILL = 782 ± CU.YDS.

UINTAH ENGINEERING & LAND SURVEYING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

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U-53624

6. If Indian, Allottee or Tribe Name
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7. If Unit or CA, Agreement Designation
Kane Springs Federal Unit

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RECEIVED

JUN 01 1993

DIVISION OF
OIL GAS & MINING

14. I hereby certify that the foregoing is true and correct

Signed

Wendy L. Deakmeary

Title

Regulatory Coordinator

Date

5/27/93

(This space for Federal or State office use)

Approved by

Conditions of approval, if any:

Title

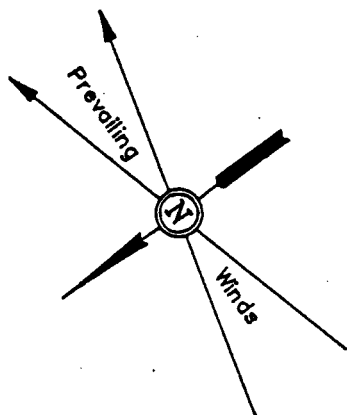
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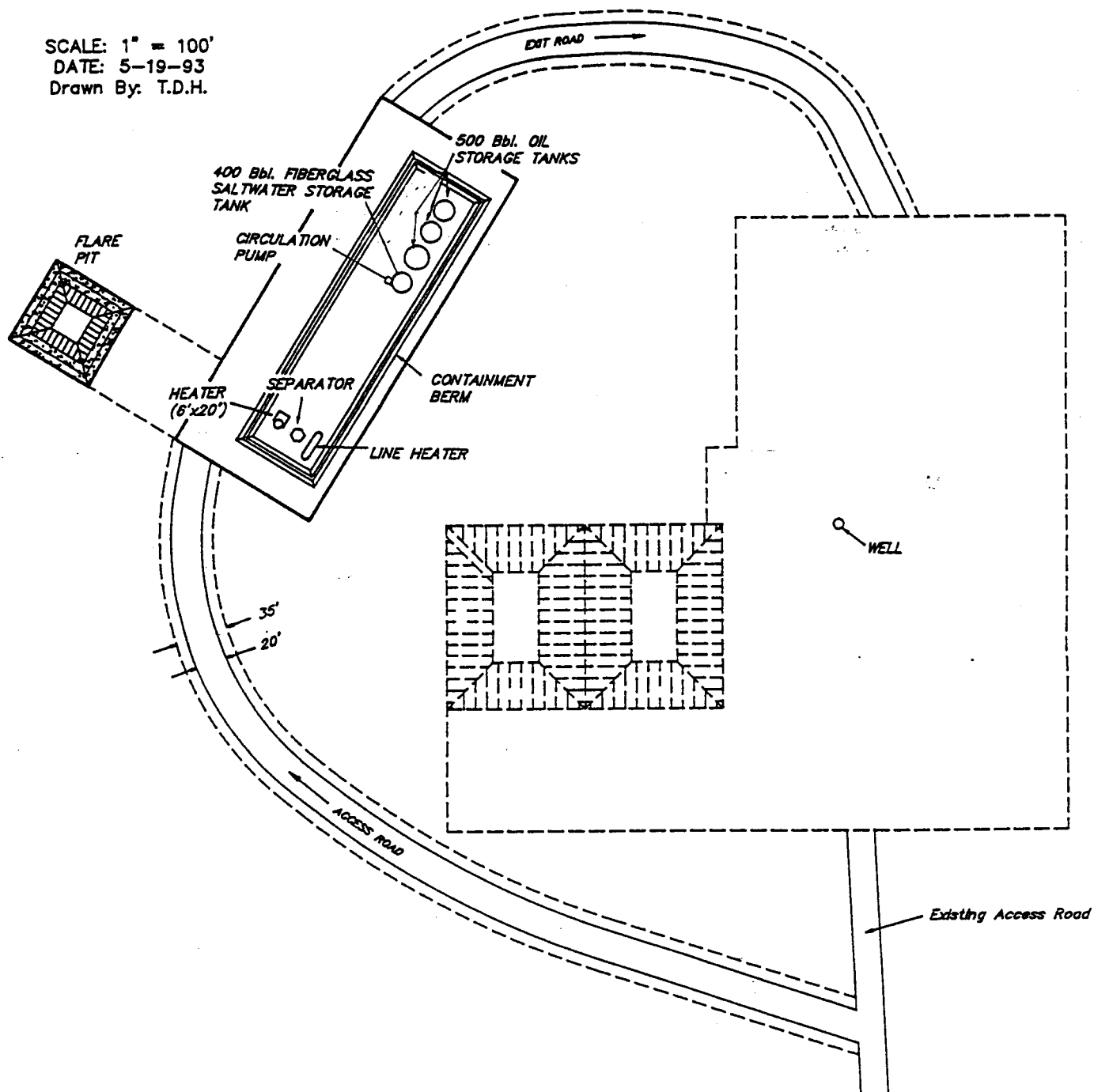
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COLUMBIA GAS DEVELOPMENT CORP.

PRODUCTION FACILITIES LAYOUT FOR
KANE SPRINGS FEDERAL #25-19-34-1
SECTION 34, T25S, R19E, S.L.B.&M.

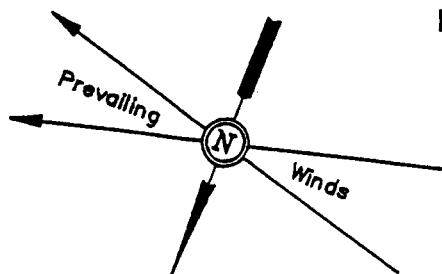


SCALE: 1" = 100'
DATE: 5-19-93
Drawn By: T.D.H.

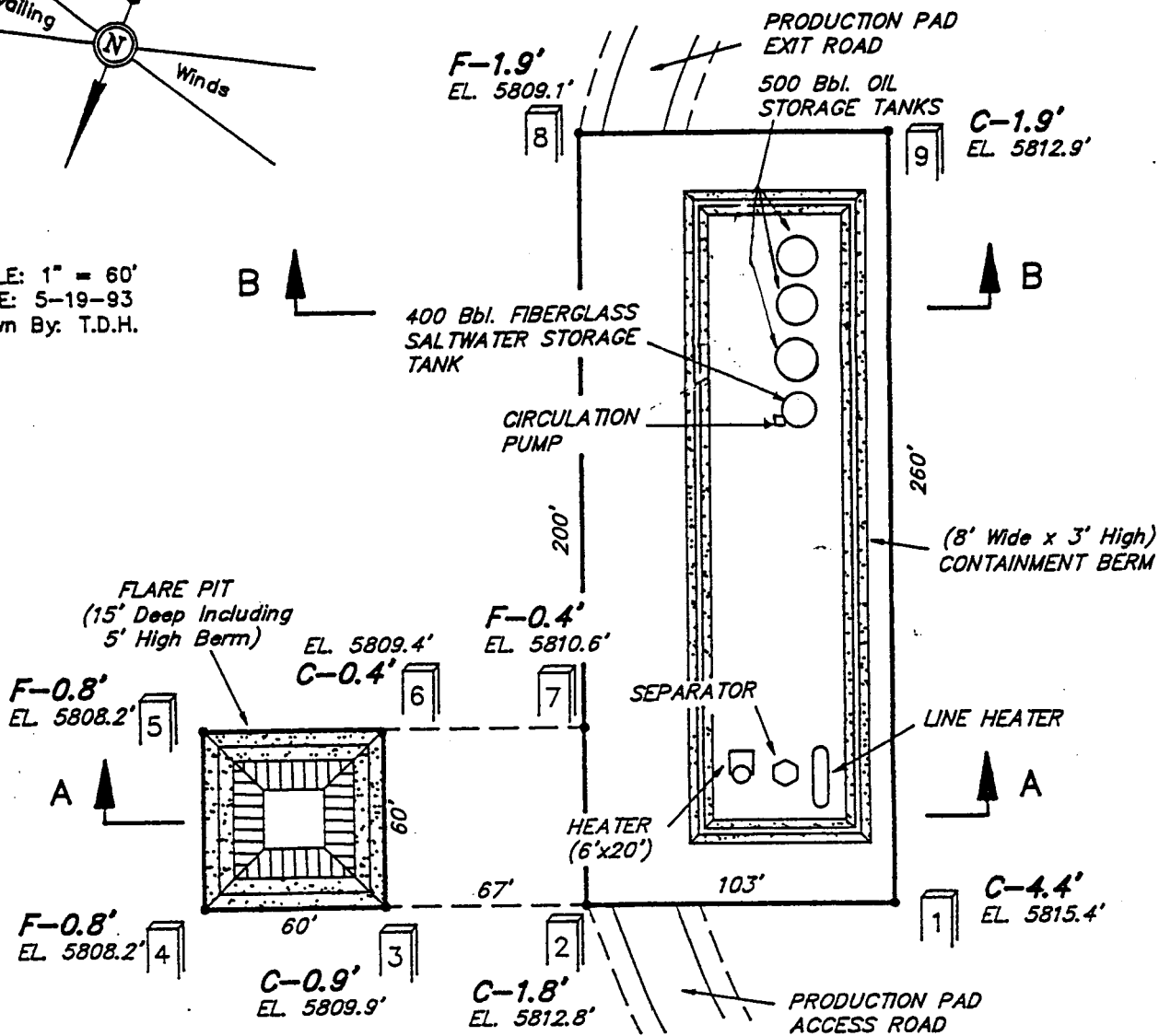


COLUMBIA GAS DEVELOPMENT CORP.

PRODUCTION FACILITIES LAYOUT FOR
KANE SPRINGS FEDERAL #25-19-34-1
SECTION 34, T25S, R19E, S.L.B.&M.



SCALE: 1" = 60'
DATE: 5-19-93
Drawn By: T.D.H.



SECTION B-B

SECTION A-A

1" = 30'
1" = 60'
CROSS SECTION SCALE

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Flare Pit has been
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Production Facilities
Pad.

APPROXIMATE YARDAGES ON
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5/24/93 Completed well test. SI well, RD Norward Well Testers,
24 hr. rate - 270 MCF, 474 B0, 35 bbls BS&W, 570/1 GOR, 30/64 ck,
5/25/93 -
6/1/93 Continue construction of production pad and roads, Well SI for
pressure build-up.

RECEIVED

CONFIDENTIAL

JUN 03 1993

DIVISION OF
GAS & MINING

14. I hereby certify that the foregoing is true and correct

Signed

Wendy L. DeCarmay

Title

Regulatory Coordinator

Date

6/2/93

(This space for Federal or State office use)

Approved by

Conditions of approval, if any:

Title

Date

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UNITED STATES
DEPARTMENT OF THE INTERIOR
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FORM APPROVED
Budget Bureau No. 10M-0135
Expires: March 31, 1993

5. Lease Designation and Serial No.

U-53624

6. If known, Alias or True Name

N/A

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Shut-in,

6/2/93 - 6/9/93 Waiting on delivery of production equipment,

RECEIVED

JUN 11 1993

DIVISION OF
OIL GAS & MINING

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Signed

Wendy DeCarmey

Title

Regulatory Coordinator

Date

6/10/93

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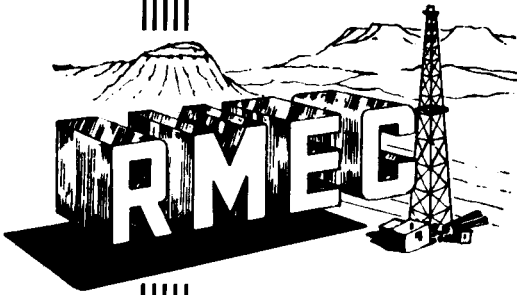
Approved by

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Title

Date

CONFIDENTIAL



CONFIDENTIAL

COLUMBIA GAS DEVELOPMENT CORP.

KANE SPRINGS FEDERAL 25-19-34-1

43-019-31334
SECTION 34, T25S, R19E

GRAND COUNTY, UTAH

ROCKY MOUNTAIN GEO-ENGINEERING CO.
—WELL SITE GEOLOGY & MUD LOGGING—

2450 Industrial Blvd. Grand Junction, Colorado 81505
Phone (303) 243-3044

CONFIDENTIAL

COLUMBIA GAS DEVELOPMENT CORP.

KANE SPRINGS FEDERAL #25-19-34-1
SE/NW/NE SEC. 10, T25S, R19E
GRAND COUNTY, UTAH

RECEIVED

JUN 14 1993

DIVISION OF
OIL GAS & MINING

GEOLOGIC REPORT

BY

J. KEITH BROWN

ROCKY MOUNTAIN GEO-ENGINEERING CORP.

TABLE OF CONTENTS

WELL SUMMARY	3
WELL CHRONOLOGY.	5
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DIRECTIONAL SURVEY	13
SAMPLE DESCRIPTIONS.	14
SHOW REPORTS	28
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GEOLOGIC SUMMARY AND ZONES OF INTEREST	31

WELL SUMMARY

OPERATOR: COLUMBIA GAS DEVELOPMENT CORP.

WELL NAME: KANE SPRINGS FEDERAL #25-19-34-1

LOCATION: SENWNE SECTION 34, T25S, R19E
(1900' FSL, 950' FEL) BOTTOM OF HOLE
(934' FSL, 1678' FEL) SURFACE LOCATION

COUNTY: GRAND

STATE: UTAH

ELEVATION: G.L.: 5821' K.B.: 5849'

SPUD DATE: 04/19/93

COMPLETION DATE: 05/03/93

DRILLING ENGINEER: JOE DAVIS

WELLSITE GEOLOGY: ROCKY MOUNTAIN GEO-ENGINEERING CORP.
GEOLOGIST: J. KEITH BROWN

MUDLOGGING COMPANY: ROCKY MOUNTAIN GEO-ENGINEERING CORP.
ENGINEERS: J. KEITH BROWN, DAVE MEADE, LES BERTROCH
STEVE HAYNES, MARK KOURY

CONTRACTOR: FORWEST, RIG #6

TOOL PUSHER: JOHN ARNDT

HOLE SIZE: 21.5" 0-60'; 17 1/2" 60-664' 12 1/4" 664'-
4389'; 8 3/4" TO 7580', 6" TO 7987'

CASING RECORD: 20" 0-88' CONDUCTOR; 13 3/8" SFC CSG TO
664', 9 5/8" CSG TO 4389' 7" CSG TO 6925'
7" CSG TO 7580'

DIRECTIONAL COMPANY: COBB DIRECTIONAL CO.
DIRECTIONAL ENGINEER: WAYNE WOODS, CHARLES DICKSON

MWD TECHNICAL SERVICE: SPERRY SUN
COMPUTER ENGINEER: TOM ARIELIUS, CHUCK HENKES

DRILLING MUD COMPANY: ADVANCED CHEMICAL TECHNOLOGY
MUD ENGINEER: DON SPARKS
TYPE MUD: 0'-4389' AIR MIST/WATER; 4389' TO TD, OIL
BASED MUD

ELECTRIC LOGGING CO.:
ENGINEER:
TYPES OF LOGS:

HALLIBURTON LOGGING SERVICES
RICK FRIDAY
LSS, GYRO

TOTAL DEPTH:

DRILLER DEPTH: 7987'

STATUS:

PENDING COMPLETION

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1
SECTION 34, T25S, R19E
GRAND COUNTY, UTAH

WELL CHRONOLOGY

DATE	DAYS	MIDNT DEPTH	FOOTAGE PER DAY	DAILY OPERATIONS
03/19/93	01	60	232	SPUD WITH AIR, DRILL
03/20/93	02	292	342	DRILL, CIRCULATE, SURVEY
03/21/93	03	634	30	TRIP OUT, RIG UP CASING CREW RUN 13 3/8" CASING AT 664', CEMENT, WAIT ON CEMENT, CUT CASING
03/22/93	04	664	68	NIPPLE UP BOP, TEST BOP, TRIP IN, DRILL CEMENT AND SHOE
03/23/93	05	732	649	DRILL TO 732, SURVEY, TRIP OUT, PICK UP NEW BHA, TRIP IN, INSTALL ROTATING HEAD, DRILL, CIRCULATE AND SURVEY, RIG SERVICE, DRILL TO 940'
03/24/93	06	1381	1140	DRILL TO 1381, CIRCULATE AND SURVEY, DRILL TO 1759, CIRCULATE AND SURVEY, INSTALL STRING FLOAT, DRILL TO 2521
03/25/93	07	2521	722	CIRCULATE, RETRIEVE STRING FLOAT, SURVEY, DRILL TO 2897, RIG SERVICE, DRILL TO 2928, CIRCULATE, MOVE STRING FLOAT DRILL TO 3243
03/26/93	08	3243	190	UNLOAD HOLE, BOP DRILL, DRILL TO 3334, CIRCULATE, MOVE STRING FLOAT, UNLOAD HOLE, TRIP FOR BIT #3, CHANGE OUT BHA, PICK UP BIT #4

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

03/27/93	09	3433	325	TRIP IN, UNLOAD HOLE, WORK DRILL STRING, DRILL TO 3683, REPAIR BLOOIE LINE, DRILL TO 3735, FILL PIPE WITH WATER, CIRCULATE, DRILL WITH AIR/WATER TO 3758
03/28/93	10	3758	631	GEOLOGIST ON LOCATION, DRILL WITH AERATED WATER BEGINNING AT 3920, TOP OF SALT AT 3983, TD AT 4389 AT 11:50 PM
03/29/93	11	4389	0	BLOW HOLE, TRIP OUT, LAY DOWN BHA, PICK UP BIT SUB AND BIT #4, TRIP IN, CIRCULATE, INJECT FOAM, TRIP OUT, RIG UP LAY DOWN MACHINE, LAY DOWN DC
03/30/93	12	4389	0	RU SHOE, RUN CASING, RIG DOWN CASING CREW, TRIP IN W/ DP, RU CEMENTERS, FILL CASING, TRIP OUT, WOC, SET SLIPS, NIPPLE UP BOP
03/31/93	13	4389	0	NIPPLE UP BOP, TEST BOP AND RAMS
04/01/93	14	4389	0	PICK UP BIT #5, DRILL COLLARS AND HEAVYWEIGHT DRILL PIPE, TRIP IN 33 JTS. LAY DOWN 33 JTS TRIP IN 35 STDS, INSTALL ROTATING HEAD, DISPLACE MUD
04/02/93	15	4389	103	DRILL OUT 00:50, RIG SVC, DRILL TO 4434, SURVEY, MIX AND PUMP SLUG, TRIP OUT, WORK BOP, PU NEW BHA, TRIP IN W/ B#6
04/03/93	16	4492	410	DRILL TO 4618, CIRCULATE AND SURVEY, DRILL TO 4743, RIG SVC, SURVEY 4833, RIG SERVICE ON SHAKER, DRILL TO 4883, TRIP OUT, PU BIT #7
04/04/93	17	4902	170	TRIP IN HOLE, DRILL TO 4943, CIRCULATE AND SURVEY, RIG SVC, DRILL TO 5072

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

04/05/93	18	5072	388	DRILL TO 5131, CIRCULATE AND SURVEY, DRILL TO 5226, CIRCULATE AND SURVEY, RIG SVC, DRILL TO 5305, CIRCULATE AND SURVEY, DRILL TO 5460
04/06/93	19	5460	207	CIRCULATE AND SURVEY, TRIP OUT, TRIP IN WITH BIT #8, DRILL TO 5672, CIRCULATE AND SURVEY, RIG SVC, DRILL TO 5667
04/07/93	20	5667	387	CIRCULATE AND SURVEY, TRIP OUT, TRIP IN WITH BIT #9, CHANGE OUT ROTATING HEAD, REAM 48' TO BOTTOM, DRILL TO 6054
04/08/93	21	6054	576	DRILL TO 6153, CIRCULATE AND SURVEY, DRILL TO 6630
04/09/93	22	6630	66	DRILL TO 6696, STUCK, LOST CIRCULATION IN SALT #18, LOSS OF 800 BBLs MUD, TRIP OUT INTO SHOE, CHAIN OUT, TRIP OUT, LD BHA, BUILD LCM PILL, TRIP TO BOTTOM, PUMP SLUG, LOST 307 BBLs, TRIP TO SHOE, TRIP IN, PUMP LCM SLUG, MUDLOGGER PUT ON STANDBY
04/10/93	23	6696	4	TRIP IN, PUMP PILL, TRIP OUT 21 STDS, TRIP IN TO SHOE, BUILD VOLUME, CUT BACK MUD WT, W.O. MUD, DRILL 6696 TO 6706'
04/11/93	24	6703	0	MAKE UP PACKER, TRIP IN 46 JTS, FILL BACKSIDE, LOST 300 BBLs MUD, FILL BACKSIDE, LOST 295 BBLs MUD, PACKER FAILED, TRIP OUT, LD PACKER, W.O. TOOLS, MAKE UP PACKER, TEST PACKER, AT 2480', PACKER FAILED, TEST PACKER AT 3426', 3710', 3972', AND 4182', NO TEST.

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

04/12/93	25	6703	0	TEST PACKER AT 3992, FILL BACKSIDE, PUMP 75 BBLS WATER, WAIT ON CEMENT, TRIP OUT OF HOLE, LD PACKER, PU BIT, TRIP IN TO 4389', PRESSURE TEST, TRIP OUT OF HOLE W/ PACKER, RIG UP AND LOG W/ HALLIBURTON
04/13/93	26	6703	0	LOG W/ HALLIBURTON, TRIP IN HOLE W/ RR#8 TO 6693' TAG UP TO 10' OF BOTTOM, TRIP OUT, LD 4 JTS DP, TRIP IN OPEN, SPOT LCM PILL, TOOH, PU PACKER, TRIP IN HOLE TO 3580', SET PACKER, FILL CASING, CEMENT W/ 270 SKS 10-2 RFCT AND 10 SKS D42, AND 44 SKS D29, W.O.C.
04/14/93	27	6703	3	WAIT ON CEMENT, TEST TO 1300 PSI, TOOH W/ PACKER, PU BIT AND BHA, TRIP IN TO 3807', DRLG CMT TO 4014' TEST 1300 PSI, TRIP IN TO 6703, CIRC, DRILL TO 6706' TEST TO 1300 PSI, DISPLACE HOLE
04/15/93	28	6706	164	DISPLACE HOLE, TRIP OUT, STRAP OUT, PUT 19 JTS TO RACK AND STRAP, TRIP IN W/ RR#6, PU 19 JTS DP, LD 19 JTS DP, TRIP IN, INSTALL ROTATING HEAD, DRLG TO 6870, CIRCULATE FOR TRIP.
04/16/93	29	6870	99	TRIP OUT, NO DRAG, HOLE TOOK 98 BBLS TO FILL, E-LOG, PU DIR TOOLS AND BHA, TRIP IN TO 4389, LD 3 JTS, TEST DIR TOOL, TRIP IN TO 6720, REAM TO 6870, DRLG TO 6914, WORK ON STD PIPE SENSOR, DRLG TO 6969, LOST 400# PUMP PRESSURE, CK SFC EQUIPMENT.
04/17/93	30	6969	109	TRIP OUT, LOOK FOR HOLE IN PIPE, LD MUD MOTOR, MAKE UP BHA, TRIP IN TO SHOE AT 4389, CIRCULATE UP CARBIDE, TRIP TO BOTTOM, CIRCULATE HOLE, DRILL TO 7078.

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

04/18/93	31	7078	158	POOH LOOK FOR HOLE IN PIPE, LD BHA AND MWD, PU BHA C/O ASSBY, TIH, TO 4412, BREAK CIRC, PUMP CARBIDE, ALL EQUIP CHECKS OK, TIH TO 6969 W/ 8' FILL
04/19/93	32	7203	125	BUILD AND PUMP SLUG, POOH C/O BHA, TIH TO 4907, CHECK MOTOR, TIH TO 6969, REAM AND WASH TO 7203, SLIDE TO 7228, ROTATE TO 7237, WORK PIPE, TIGHT HOLE.
04/20/93	33	7237	34	CIRC, RAISE MUD WT TO 13.6#, DRILL-ROTATE TO 7295, LOST 110 BBLs IN LAST 24 HRS, ADD LIQUID CASING TO STOP SEEPAGE, SLIDE TO 7363, ROTATE TO 7394, WORK TIGHT HOLE 7363 TO 7394, SLIDE TO 7420, WORK TIGHT HOLE, SLIDE TO 7457, ROTATE TO 7472, SLIDE TO 7489.
04/21/93	34	7489	91	ROTATE TO 7505, SLIDE TO 7521, ROTATE TO 7530, SLIDE TO 7552, ROTATE TO 7563, CIRCULATE BOTTOMS UP, ROTATE TO 7580, CIRCULATE BOTTOMS UP, PULL 8 STANDS, SPOT LCM PILL AT 6700' POOH, LD 6 JTS DP, POOH, TRIP IN TO 4389
04/22/93	35	7580	0	CUT DRLG LINE, MIX LCM PILL, TIH TO 6872, CIRC HOLE, TIH TO 7580, LOST 4 BBLs, CIRC BOTTOMS UP, BYPASS SHAKER, GEOLOGIST ON STANDBY, POOH TO RUN 7" CASING.
04/23/93	36	7580	0	RUN 7" CASING, FULL RETURNS, RIG UP DOWELL, CIRCULATE 7" CASING WITH RIG PUMP, CEMENT W/ 30 BBLs MUD & 100 SKS CL G CMT, 450 SKS FOAM CEMENT W/ N2, 135 SKS SALT BOND, RD DOWELL, RU STACK WINCHES, LIFT STACK, SET SLIPS, CUT 7" CASING, NIPPLE UP BOP

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

04/24/93	37	7580	0	NIPPLE UP BOP, NIPPLE UP WELL HEAD, NIPPLE UP BOP, RU LAY DOWN CREW, DL DP OUT OF MOUSE HOLE, LD KELLY PU 3 1/2" KELLY, PU 3 1/2" DRILL STRING, PU SPIRAL WATE DP, AND DC, CIRC AND CONDITION MUD, POOH
04/25/93	38	7580	0	NIPPLE UP BOP, CUT 2 1/2" OFF CASING, STUB C/O TBG, HEAD TEST 5000# FOR 10 MIN., NIPPLE UP BOP, C/O PIPE RAMS, TEST UPPER/LOWER BLIND RAMS ET AL TO 5000# FOR 15 MIN. PU SPERRY SUN MWD GR TIH, TEST SPERRY SUN TOOLS, TIR TO 6137
04/26/93	39	7580	4	LOG 6944-7000, LOG 7080-7131, TIH TO 7488 TAG FLOAT COLLAR, DRLG FLOAT COLLAR, PRESSURE TEST CASING TO 2000#, NO CEMENT IN SHOE JT. 7488 TO 7564, TAG CEMENT, DRILL SHOE, CIRCULATE UP 2800 UNITS GAS WITH MUD CUT 14.2 TO 13.5#, TOOH FOR BHA 13.5 DEG/100 BUILD TOOL.
04/27/93	40	7584	74	TIH, DRLG TO 7642, CIRC BOTTOMS UP, DRLG TO 7652, CIRCULATE UP 3560 UNIT GAS SHOW, DRLG TO 7658, CIRCULATE UP 6250 UNIT GAS SHOW, MUD CUT .5#, MUD UP TO 15.1, WELL FLOWING SLIGHTLY, PRESSURE ON CASING AT 250#, MUD UP TO 16.0#, DRLG TO 7658'
04/28/93	41	7658	24	CIRC AND CONDITION MUD, PUMP SLUG, TRIP OUT, 66 BBLs TO FILL HOLE, CHANGE BHA, TEST MWD, PU BIT, TIH TO 4648', FILL PIPE, TIH, WASH AND REAM TO 7663', CIRC UP TRIP GAS, SHUT WELL IN, MAX GAS 11,360, 41 BBL GAIN, OIL ON PITS, 25+ FOOT YELLOW ORANGE FLARE, WELL ON CHOKE, INCREASE MUD WT TO 16.8#, WT AT TRIP GAS CUT TO 11.4#, CIRC ON HOLE, TEST MWD, SLIDE TO 7682

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

04/29/93	42	7682	130	ROTATE TO 7718, SLIDE TO 7727, ROTATE TO 7729, CHG PUMP CK SURVEY, ROTATE TO 7732', RIG SVC, TEST BOP, ROTATE TO 7737, SLIDE TO 7748, CK SURVEY, ROTATE TO 7763, SLIDE TO 7783, CIRC SAMPLES AT 7783, 5 BBL LOSS, SLIDE TO 7812'
04/30/93	43	7812	130	ROTATE TO 7844, SLIDE TO 7851, CIRC BOTTOMS UP AT 7851', WORK ON PUMPS. SLIDE TO 7942'
05/01/93	44	7942	45	ROTATE TO 7955, SLIDE TO 7987, CIRC SAMPLES, WOO, SPOT 17.5# SLUG, PULL 9 STDS, TIGHT, TRIP IN 5 STDS, CIRC 3160 UNITS GAS UP, PULL 2 STDS, TRIP TO BOTTOM, RETRIEVE AND CHANGE ROTATING HEAD, CIRC 1600 UNITS GAS, BUILD MUD WT TO 17.5#, PUMP SLUG,
05/02/93	45	7987	0	TOOH, LD MUD MOTOR, PU MAGNET, TIH TO 7867, CIRC, ON CHOKE AT 7867, WASH TO 7987, CIRC GAS UP, GET MUD TO 17.5#, PUMP SLUG, TO W/ MAGNET, RIG SVC, REPAIR WATER ON BRAKES, TO W/ MAGNET, LD MAGNET, PU JUNK BASKET AND MILL.
05/03/93	46	7987	0	MILL, TOOH, TIH CIRC UP GAS, MUD LOGGERS RELEASED 05/03/93.

ROCKY MOUNTAIN GEO-ENGINEERING CO.

(303) 243-3044

BIT RECORD - FT PER/DAY - DEVIATION

WELL NAME: KANE SPRINGS FED. #25-19-34-1
 COMPANY: COLUMBIA GAS DEVEL. CORP.
 CONTRACTOR: FORWEST #6
 SPUD DATE: 03/19/93

ELEVATION: KB: 5849' GL: 5297'
 LEGAL: 34-25N-19E
 CO/ST: GRAND, UTAH
 TD DATE: 05/03/93

BIT RECORD

FT PER/DAY

DEVIATION

RUN	SIZE	MAKE	TYPE	IN/OUT	FTG	HOURS	FT/HR	DATE	DEPTH	FT	DEPTH	DEV.(DEG)
1	17.5	RTC	Y-13	664	604	19	31.789	3/19	60	232		
2	12.25	STC	SDGH	777	113	7	16.143	3/20	292	342		
3	12.25	STC	F-2	3433	2657	70	37.957	3/21	634	30		
4	12.25	STC	3JS	4389	955	38	25.132	3/22	664	68		
5	8.75	RTC	HP11J	4435	45	8.5	5.2941	3/23	732	649		
6	8.75	HYC	DS56H	4883	449	15.5	28.968	3/24	1381	1140		
7	8.75	STC	FDT	5460	577	45	12.822	3/25	2521	722		
8	8.75	STC	FDST	5667	207	15.5	13.355	3/26	3243	190		
RR6	8.75	HYC	DS56H	6700	1033	36.5	28.301	3/27	3433	325		
RR8	8.75	STC	FDST	6700	0	0	0	3/28	3758	631		
RR6	8.75	HYC	DS56H	6870	164	4	41	3/29	4389	0		
11	8.75	STC	FDT	7202	332	24.5	13.551	3/30	4389	0		
RR6	8.75	HYC	DS56H	7580	378	37	10.216	3/31	4389	0		
RR11	8.75	STC	FDT	7580	0	0	0	4/01	4389	0		
12	6	STC	FDT	7585	4	1.5	2.6667	4/02	4389	103		
13	6	HYC	DS56H	7987	402	72	5.5833	4/03	4492	410		
								4/04	4902	170		
								4/05	5072	388		
								4/06	5460	207		
								4/07	5667	387		
								4/08	6054	576		
								4/09	6630	66		
								4/10	6696	0		
								4/11	6696	0		
								4/12	6696	10		
								4/13	6706	0		
								4/14	6706	0		
								4/15	6706	63		
								4/16	6769	0		
								4/17	6769	309		
								4/18	7078	158		
								4/19	7236	253		
								4/20	7489	91		
								4/21	7580	0		
								4/22	7580	0		
								4/23	7580	0		
								4/24	7580	0		
								4/25	7580	0		
								4/26	7580	8		
								4/27	7588	70		
								4/28	7658	24		
								4/29	7682	130		
								4/30	7812	130		
								05/01	7942	45		
								05/02	7987	0		
								05/03	7987	0		

(303) 243-3044

STATE: UTAH

MD	TVD	DEV.	DIR.	MD	TVD	DEV.	DIR.
100	100	0.15	7.66	3700	3699.72	2.3	231.67
200	200	0.18	357.04	3800	3799.63	2.59	233.83
300	300	0.4	336.15	3900	3899.53	2.67	231.28
400	400	0.46	333.24	4000	3999.44	2.17	227.77
500	499.99	0.54	330.27	4100	4099.33	3.1	250.15
600	599.99	0.5	335.93	4200	4199.18	3.21	245.21
700	699.98	0.29	319.48	4300	4299.08	2.13	280.07
800	799.98	0.3	320.22	4400	4398.98	2.85	285.29
900	899.98	0.3	321.73	4500	4498.85	3.05	289.18
1000	999.98	0.28	311.62	4600	4598.71	3.15	298.99
1100	1099.98	0.28	311.92	4700	4698.54	3.48	305.45
1200	1199.98	0.25	302.53	4800	4798.35	3.63	309.96
1300	1299.98	0.31	296.02	4900	4898.15	3.53	310.64
1400	1399.98	0.23	291.78	5000	4997.99	3.04	314.17
1500	1499.97	0.33	295.51	5100	5097.86	2.79	322.68
1600	1599.97	0.4	311.45	5200	5197.76	2.25	319.32
1700	1699.97	0.43	293.53	5300	5297.69	1.98	319.93
1800	1799.97	0.47	308.62	5400	5397.64	1.79	327.72
1900	1899.96	0.4	286.36	5500	5497.59	1.64	333.49
2000	1999.96	0.47	324.59	5600	5597.95	1.66	335.42
2100	2099.96	0.52	298.92	5700	5697.51	1.67	333.58
2200	2199.95	0.43	297.28	5800	5797.47	1.71	339.43
2300	2299.95	0.35	310.27	5900	5897.42	1.88	339.83
2400	2399.95	0.45	305.96	6000	5997.36	1.98	336.4
2500	2499.95	0.24	304.12	6100	6097.3	2.18	336.9
2600	2599.95	0.42	278.43	6200	6197.23	2.11	335.72
2700	2699.94	0.5	258.23	6300	6297.15	2.3	338.13
2800	2799.94	0.5	244.1	6400	6397.07	2.17	336.19
2900	2899.93	0.63	246.97	6500	6497.01	1.99	338.98
3000	2999.93	0.8	240.42	6600	6596.95	1.86	336.65
3100	3099.92	0.85	231.97	6700	6696.9	1.86	333.35
3200	3199.9	1	234.25	6800	6796.83	2.29	334.48
3300	3299.88	1.16	241.11	6838	6834.8	2.64	333.8
3400	3399.86	1.42	235.23	6878	6874.78	0.1	274.4
3500	3499.83	1.55	236.85	6909	6905.76	4.1	176.3
3600	3599.79	1.69	236.93	6941	6937.53	9.3	173

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1
SEWNNE SEC. 34, T25S, R19E
GRAND COUNTY, UTAH

SAMPLE DESCRIPTION

10' SAMPLING INTERVAL

TOP OF CLASTIC #2 4390' (+1459)

4494-4400	80% Anhy, wh-bf, occ tn, sft, amor 20% Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis
4400-4410	50% Anhy, wh-bf, occ tn, sft, amor 50% Siltst, dkggy-mgy, anhy, sft-brit, tr carb lam
4410-4420	40% Anhy, wh-bf, occ tn, sft, amor 20% Siltst, dkggy-mgy, anhy, sft-brit, tr carb lam 40% Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis
4420-4430	60% Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis 40% Anhy, wh-bf, occ tn, sft, amor
4430-4440	60% Anhy, wh-bf, occ tn, sft, amor 40% Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis occ dk gy splnty, brit
4440-4450	80% Anhy, wh-bf-gy dirty, occ tn, sft, amor, w/ sh ptgs 20% Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis TR Hal, wh clr occ tn, trns1, vcrsxn, brit, salt casts
4450-4470	100% Anhy, wh-bf, occ tn, sft, amor, occ dirty, w/ sh incl TR Hal, wh clr occ tn, trns1, vcrsxn, brit, salt casts.

TOP OF SALT #3 4471' (+1378')

4470-4480	50% Anhy, wh-bf, occ tn, sft, amor 50% Hal, wh clr occ tn, trns1, vcrsxn, brit, abnt anhy incl
4480-4565	100% Hal, wh clr occ tn, trns1, vcrsxn, brit, tr anhy incl, w/ tr carb sh ptgs

TOP OF CLASTIC #3 4565' (+1284')

4565-4570	50% Hal, wh clr occ tn, trns1, vcrsxn, brit 40% Anhy, wh-bf, occ tn, sft, amor 10% Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis
4570-4590	60% Anhy, wh-bf, occ tn, sft, amor, bcm occ gummy, rr dirty 40% Sh, blk-dk gy, carb, sooty ip, frm, splnty-occ fis

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

4590-4600	50%	Anhy, wh-bf, occ tn, sft, amor
	50%	Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis
4600-4620	60%	Anhy, wh-bf, occ tn, sft, amor, occ offwh, gy, slty, w/ sme blk sh ptgs.
	40%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam, dol, blkgy ip
4620-4630	50%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam, dol
	50%	Anhy, wh-bf, occ tn, sft, amor, mott, occ gummy, slty ip
4630-4640	80%	Anhy, wh-bf, occ tn, sft, amor
	20%	Sltst, aa.
4640-4650	100%	Anhy, wh-bf, occ tn, sft, amor, slty, w/ blk sh ptgs
		TOP OF SALT #4 4645' (+1204')
4650-4690	100%	Hal, wh clr occ tn, trns1, vcrsxn, brit, anhy
4690-4710	80%	Hal, wh clr occ tn, trns1, vcrsxn, brit, sft
	20%	Anhy, wh-bf, occ tn, sft, amor
4710-4760	100%	Hal, wh clr occ tn, trns1, vcrsxn, brit, mott, w/ sh ptgs
		TOP OF CLASTIC #4 4767' (+1082)
4760-4770	60%	Anhy, wh-bf, occ tn, sft, amor
	40%	Hal, wh clr occ tn, trns1, vcrsxn, brit
4770-4780	50%	Anhy, wh-bf, occ tn, sft, amor
	50%	Sh, blk-dk gy, sb carb, sft-frm, occ fis, blkgy
4780-4800	20%	Hal, wh clr occ tn, trns1, vcrsxn, brit
	60%	Anhy, wh-bf, occ tn, sft, amor
	20%	Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis
		TOP OF SALT #5 4808' (+1041')
4800-4810	80%	Hal, wh-clr, aa, w/ org/pk trns1 potash sft-brit, crsxn-vcrsxn
	20%	Anhy, wh-bf, occ tn, sft, amor, w/ carb incl
4810-4930	100%	Hal, wh clr occ tn, trns1, vcrsxn, brit, w/ tr org potash
		TOP OF CLASTIC #5 4931' (+918')
4930-4940	50%	Anhy, wh-bf, occ tn, sft, amor
	50%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

4940-4950	50%	Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis, vcarb ip, MIN CUTS, POOR RING.
	50%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
4950-4970	100%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
4970-4980	80%	Anhy, wh-bf, occ tn, sft, amor, gummy ip, mott, occ slty
	20%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
4980-4990	40%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
	60%	Anhy, wh-bf, occ tn, sft, amor, gummy
4990-5000	80%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
	20%	Anhy, wh-bf, occ tn, sft, amor
TOP OF SALT #6 4999' (+850)		
5000-5010	80%	Hal, wh clr occ tn, trns1, vcrsxn, brit
	20%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
5010-5020	90%	Hal, wh clr occ tn, trns1, vcrsxn, brit
	10%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
5020-5260	100%	Hal, wh-clr, aa, w/ org/pk trns1 potash sft-brit, crsxn-vcrsxn
TOP OF CLASTIC #6 5259' (+590)		
5260-5270	20%	Hal, wh clr occ tn, trns1, vcrsxn, brit
	30%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
	50%	Anhy, wh-bf, occ tn, sft, amor, mott, gummy ip
5270-5280	50%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
	50%	Anhy, wh-bf, occ tn, sft, amor, occ gummy
TOP OF SALT #7 5285' (+564)		
5280-5290	50%	Anhy, wh-bf, occ tn, sft, amor
	30%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
	20%	Hal, wh-clr, aa, w/ org/pk trns1 potash sft-brit, crsxn-vcrsxn
5290-5320	100%	Hal, wh-clr, aa, w/ org/pk trns1 potash sft-brit, crsxn-vcrsxn
5320-5380	100%	Hal, wh clr occ tn, trns1, vcrsxn, brit, anhy incl
TOP OF CLASTIC #7 5374' (+475)		

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

5370-5390 20% Hal, wh clr occ tn, trnsl, vcrsxn, brit
 60% Anhy, wh-bf, occ tn, sft, amor, poss nod, salt casts
 20% Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis

TOP OF SALT #8 5382 (+467)

5390-5430 100% Hal, wh clr occ tn, trnsl, vcrsxn, brit

5430-5450 100% Hal, wh-clr, aa, w/ org/pk trnsl potash
 sft-brit, crsxn-vcrsxn

TOP OF CLASTIC #8 5446' (+403)

5450-5460 60% Hal, wh-clr, aa, w/ org/pk trnsl potash
 sft-brit, crsxn-vcrsxn
 20% Anhy, wh-bf, occ tn, sft, amor
 20% Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis

5460-5470 20% Hal, wh-clr, aa, w/ org/pk trnsl potash
 sft-brit, crsxn-vcrsxn
 40% Anhy, wh-bf, occ tn, sft, amor, rr slty, shly
 40% Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis

5470-5480 80% Anhy, wh-bf, occ tn, sft, amor
 20% Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis
 MIN CUT, POOR RING

5480-5490 50% Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
 50% Anhy, wh-bf, occ tn, sft, amor,

TOP OF SALT #9 5494' (+355)

5490-5500 40% Anhy, wh-bf, occ tn, sft, amor
 50% Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
 10% Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis
 TR Hal, wh clr occ tn, trnsl, vcrsxn, brit

5500-5510 50% Anhy, wh-bf, occ tn, sft, amor
 50% Hal, wh clr occ tn, trnsl, vcrsxn, brit

5510-5560 100% Hal, wh clr occ tn, trnsl, vcrsxn, brit

5560-5610 100% Hal, wh-clr, aa, w/ org/pk trnsl potash
 sft-brit, crsxn-vcrsxn

TOP OF CLASTIC #9 5622' (+227)

5610-5630 100% Hal, wh clr occ tn, trnsl, vcrsxn, brit

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5630-5640	80%	Anhy, wh-bf, occ tn, sft, amor
	20%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
5640-5650	70%	Anhy, wh-bf, occ tn, sft, amor, occ crm, v sft
	30%	Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis
5650-5670	60%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
	40%	Anhy, wh-bf, occ tn, sft, amor
TOP OF SALT #10 5666' (+183')		
5670-5680	20%	Anhy, wh-bf, occ tn, sft, amor
	20%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
	60%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
5680-5810	100%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
TOP OF CLASTIC #10 5810' (+39)		
5810-5820	100%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
	TR	Anhy, wh-bf, occ tn, sft, amor, stringers
5820-5830	20%	Anhy, wh-bf, occ tn, sft, amor
	20%	Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis
	60%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam, tr anhy
5830-5840	10%	Anhy, wh-bf, occ tn, sft, amor
	10%	Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis
	80%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam, dol
5840-5850	10%	Anhy, wh-bf, occ tn, sft, amor
	90%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
TOP OF SALT #11 5846' (+3)		
5850-5880	100%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
	TR	Anhy, wh-bf, occ tn, sft, amor
5880-5890	80%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
	20%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
5890-5900	100%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
TOP OF CLASTIC #11 5898' (-49)		
5900-5910	60%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
	20%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
	20%	Anhy, wh-bf, occ tn, sft, amor

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5910-5920	20%	Anhy, wh-bf, occ tn, sft, amor
	40%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
	30%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
	10%	Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis
TOP OF SALT #12 5916 (-67)		
5920-5930	40%	Anhy, wh-bf, occ tn, sft, amor
	20%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
	20%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
	20%	Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis
TOP OF CLASTIC #12 5920' (-71)		
5930-5940	20%	Anhy, wh-bf, occ tn, sft, amor
	60%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
	20%	Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis
5940-5950	10%	Anhy, wh-bf, occ tn, sft, amor
	70%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
	20%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
TOP OF SALT #13 5952' (-103)		
5950-5960	10%	Anhy, wh-bf, occ tn, sft, amor
	90%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn
5960-5980	100%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn
5980-5990	90%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn
	05%	Anhy, wh-bf, occ tn, sft, amor
	05%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
5990-6020	80%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn
	20%	Anhy, wh-bf, occ tn, sft, amor
6020-6040	10%	Anhy, wh-bf, occ tn, sft, amor
	90%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn
6040-6050	10%	Anhy, wh-bf, occ tn, sft, amor
	20%	Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
	70%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn

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6050-6060	80%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn
	20%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
6060-6130	100%	Hal, wh clr occ tn, trnsl, vcrsxn, brit, decr potash tr anhy wh off wh tn mott sft tr sltst dk gy-gy sft anhy
		TOP OF CLASTIC #13 6130' (-281)
6130-6150	10%	Anhy, wh-bf, occ tn, sft, amor
	40%	Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis
	50%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
6150-6160	30%	Anhy, wh-bf, occ tn, sft, amor, mott
	70%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam, dol, rthy
		TOP OF SALT #14 6162' (-313)
6160-6170	40%	Anhy, wh-bf, occ tn, sft, amor
	60%	Hal, wh clr occ tn, trnsl, vcrsxn, brit, w/ blk sh ptgs
6170-6180	100%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
6180-6220	90%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
	10%	Anhy, wh-bf, occ tn, sft, amor
6220-6240	100%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
		TOP OF CLASTIC #14 6246' (-397)
6240-6250	20%	Anhy, wh-bf, occ tn, sft, amor
	80%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
6250-6260	20%	Anhy, wh-bf, occ tn, sft, amor
	70%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
	10%	Sh, blk-dk gy, sb carb, blk-plty, sft-fm occ fis
		TOP OF SALT #15 6263' (-414)
6260-6270	20%	Anhy, wh-bf, occ tn, sft, amor
	70%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
	10%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
6270-6280	10%	Anhy, wh-bf, occ tn, sft, amor
	90%	Hal, wh clr occ tn, trnsl, vcrsxn, brit, w/ blk sh ptgs
6280-6300	100%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
		TOP OF CLASTIC #15 6298' (-449)

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6300-6310	40%	Anhy, wh-bf, occ tn, sft, amor, gummy ip
	60%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
6310-6320	40%	Anhy, wh-bf, occ tn, sft, amor
	50%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
	10%	Sh, blk-dk gy, carb, sooty ip, sft-frn occ fis
TOP OF SALT #16 6320' (-471)		
6320-6330	20%	Anhy, wh-bf, occ tn, sft, amor
	80%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
6330-6390	100%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn
6390-6400	100%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn, w/ sme blk carb sh incl
6400-6460	100%	Hal, wh-clr, aa, w/ org/pk, occ red, trnsl potash sft-brit, crsxn-vcrsxn
6460-6470	40%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn
	40%	Anhy, wh-bf, occ tn, sft, amor
	20%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
TOP OF CLASTIC #16 6473' (-624)		
6470-6480	40%	Anhy, wh-bf, occ tn, sft, amor
	20%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn
	30%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
	10%	Sh, blk-dk gy, carb, sooty ip, sft-frn occ fis
6480-6490	10%	Anhy, wh-bf, occ tn, sft, amor
	20%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
	20%	Sh, blk-dk gy, carb, sooty ip, sft-frn occ fis
	50%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
TOP OF SALT #17 6488' (-639')		
6490-6524	100%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
TOP OF CLASTIC #17 6524 (-675)		

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6524-6530	50%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
	30%	Anhy, wh-bf, occ tn, sft, amor
	10%	Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis
	10%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
TOP OF SALT #18 6530' (-681')		
6530-6540	90%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
	10%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
6540-6620	100%	Hal, wh clr occ tn, trnsl, vcrsxn, brit, w/ slty, arg incl w/ tr anhy
6620-6670	100%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn
6670-6680	100%	Hal, wh clr occ tn, trnsl, xln-vcrsxn, sft-fm, sli incr fri-brit, (PDC shavings breaking easily along crystalline boundaries)
6680-6706		NO SAMPLES TAKEN, LOST CIRCULATION 800 INITIAL BBLs, STUCK PIPE, NO RETURNS ON BACKSIDE, LOST 2584 BBLs OIL MUD, AND 6700 BBLs TOTAL FLUID, ADD LCM, CEMENT BOTTOM OF HOLE AND TEAR IN INTERMEDIATE CASING
6706-6750	100%	Hal, wh clr occ tn, trnsl, vcrsxn, brit, w/ anhy incl, p xln mtx, no cement seen in samples.
TOP OF CLASTIC #18 6750' (-901)		
6750-6760	10%	Hal, wh clr occ tn, trnsl, vcrsxn, brit
	10%	Sh, blk-dk gy, carb, sooty ip, sft-fm occ fis
	20%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
	60%	Anhy, wh-bf, occ tn, sft, amor
TOP OF SALT #19 6758' (-909)		
6760-6770	20%	Anhy, wh-bf, occ tn, sft, amor
	80%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn
6770-6830	100%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit, crsxn-vcrsxn
6830-6870	100%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit,
6870-6940	100%	Hal, wh-clr, aa, w/ org/pk trnsl potash sft-brit,

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6940-6950 40% Anhy, wh-bf, occ tn, sft, amor
 10% Hal, wh-clr, aa, w/ org/pk trnsf potash sft-brit,
 20% Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
 30% Sh, blk-dk gy, carb, sooty ip, sft-frn occ fis

TOP OF CLASTIC #19 6945' (-1096')

6950-6960 30% Anhy, wh-bf, occ tn, sft, amor
 10% Hal, wh-clr, aa, w/ org/pk trnsf potash sft-brit,
 20% Slst, dkg-mgy, anhy, sft-brit, tr carb lam
 40% Sh, blk-dk gy, carb, sooty ip, sft-frn occ fis

6960-6970 80% Anhy, wh-bf, occ tn, sft, amor
 10% Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
 10% Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis

6970-6980 20% Anhy, wh-bf, occ tn, sft, amor
 80% Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam

6980-6990 80% Anhy, wh-bf, occ tn, sft, amor
 20% Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam

TOP OF SALT #20 6990' (-1141)

6990-7060 100% Hal, wh clr occ tn, trnsl, vcrsxn, brit

TOP OF CLASTIC #20 REMNANT 7060' (-1211)

7060-7070 90% Hal, wh clr occ tn, trns1, vcrsxl n, brit
 10% Anhy, wh-bf, occ tn, sft, amor

TOP OF SALT #21 7065' (-1216)

7070-7203 100% Hal, wh clr occ tn, trnsl, vcrsxn, brit

7203-7400 100% Hal, wh clr occ tn, trnsf, vcrsxn, brit, w/ minor amts of sh,
slt, and anhy incl.

7400-7530	100%	Hal, wh clr occ tn, trnsl, vcrsxn, brit, aa
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SAMPLE TOP OF THE CANE CREEK A1 ANHYDRITE, 7530'
TVD DEPTH = 7321' (-1472')

7530-7536 25% Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis
 25% Hal, wh clr occ tn, trnsl, vcrsxn, brit
 50% Anhy, wh-bf, occ tn, sft, amor, nodular, slty

SAMPLE TOP OF THE CANE CREEK A1 SHALE, 7536'
TVD DEPTH = 7323' (-1474')

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7536-7543 30% Anhy, wh-bf, occ tn, sft, amor, sli nod, w/ min lt gy slty incl
 70% Sh, blk-dk gy, carb, sooty ip, sft, WEAK CUT, FAIR TO GOOD
 YELLOW BLUE RING.

SAMPLE TOP OF THE CANE CREEK A2 ANHYDRITE 7543'
 TVD DEPTH = 7326' (-1477')

7543-7552 70% Anhy, wh-bf, occ tn, sft, amor, nod, slty ip
 30% Sh, blk-dk gy, carb, sooty ip, sft, WK YELLOW BLUE CUTS.

SAMPLE TOP OF THE CANE CREEK A2 SILTSTONE 7552'
 TVD DEPTH = 7329' (-1480)

7552-7563 70% Sltst, ltgy-mgy/brn, sli anhy, sft-frm, dol ip, tr sh lam, NO
 FLUORESCENCE, WEAK CUTS FAIR TO GOOD YELLOW BLUE RING.
 30% Anhy, wh-bf, occ tn, sft, amor

SAMPLE TOP OF THE CANE CREEK A3 ANHYDRITE 7563'
 TVD DEPTH = 7333' (-1484')

7563-7570 80% Anhy, wh-bf, occ tn, sft, amor, mott, lam, nod ip, occ gummy,
 rr clean.
 20% Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis

SAMPLE TOP OF THE CANE CREEK A3 SHALE, 7570'
 TVD DEPTH = 7336' (-1487')

7570-7576 40% Anhy, wh-bf, occ tn, sft, amor, aa
 40% Sltst, dkgy-mgy, dol ip, anhy, sft-brit, tr sh lam
 20% Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis

SAMPLE TOP OF THE CANE CREEK A4a ANHYDRITE 7576'
 TVD DEPTH = 7338' (-1489')

SET INTERMEDIATE CASING 7579' IN BASAL A3 SHALE

7576-7580 40% Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam
 60% Anhy, wh-bf, occ tn, sft, amor

7580-7588 30% Anhy, wh-bf, occ tn, sft, amor
 70% Sltst, dkgy-mgy, anhy, sft-brit, tr carb lam

SAMPLE TOP OF THE CANE CREEK A4a SHALE 7588'
 TVD DEPTH = 7342' (-1493')

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7588-7594	70%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
	30%	Anhy, wh-bf, occ tn, sft, amor
		SAMPLE TOP OF THE CANE CREEK A4b ANHYDRITE, 7594' TVD DEPTH 7344' (-1495')
7594-7601	40%	Anhy, wh-bf, occ tn, sft, amor
	60%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
		SAMPLE TOP OF THE CANE CREEK A4b SHALE, 7601' TVD DEPTH 7346' (-1497')
7601-7616	50%	Sh, blk-dk gy, carb, sooty, sbblky-irreg, sft-frm, occ fis
	30%	Anhy, wh-bf, occ tn, sft, amor
	20%	Sltst, gy-mgy, anhy, sft-brit, sb blk, dol, tr blk carb lam
		SAMPLE TOP OF THE CANE CREEK A5 ANHYDRITE, 7616' TVD DEPTH = 7350' (-1501')
7616-7627	60%	Anhy, wh-bf, occ tn, sft, amor, dns
	40%	Sltst, dkggy-mgy, anhy, sft-brit, tr carb lam
		SAMPLE TOP OF THE CANE CREEK B ZONE, 7627' TVD DEPTH = 7353' (-1504')
7627-7640	30%	Anhy, wh-bf, occ tn, sft, amor
	70%	Sltst, gy-mgy, anhy, dol, sft-brit, gy blk, sb plty-sb blk, occ carb lams, grdg to slty sh.
7640-7648	90%	Sh, blk- vdk gy, carb-vcarb, sb sooty, frm, sb fis, no flor, GOOD YELLOW GREEN CUTS, GOOD RING
	10%	Sltst, gy-mgy, anhy, dol, sft-brit, tr carb lam
		(MUD GAS SHOW TO 3520 UNITS, WITH ABUNDANT HEAVIES, 10' YELLOW ORANGE FLARE, LIVE OIL ON PITS)
7648-7664	80%	Sh, blk-vdk gy, v carb, sooty, frm, sb fis, no flor, GOOD YELLOW GREEN/BLUE CUTS, GOOD STRONG RING.
	20%	Sltst, gy-mgy, anhy, dol, sft-brit, sb plty-sb blk, tr carb lams grdg to slty sh.
		(MUD GAS SHOW TO 5200 UNITS, WITH ABUNDANT HEAVIES, 10-15' YELLOW ORANGE FLARE, LIVE OIL ON PITS, STRONG ODOR, HOLE PUT ON GAS BUSTER, BUILD MUD WEIGHT TO 16.0 LBS.)
		(TRIP OUT OF HOLE AT 7664' BUILD WEIGHT TO 17.0 LBS, TRIP GAS CIRCULATED OUT, TOTAL MUD GAS = 11,300 UNITS, 40 BBLS OIL GAINED ON TRIP, 20-30' YELLOW ORANGE FLARE, WELL ON CHOKE. INCREASE MUD WEIGHT TO 17.0 LBS.)

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7664-7670	80%	Sltst, ltgy-mgy/brn, anhy, dol, sb blk-yp-sbplty, sft-frm, tr carb lam grdg to slty sh incl, GOOD CUTS AND RING YELLOW GREEN.
	20%	Sh, blk-dk gy, carb, sooty ip, sft-brit, fis, GOOD YELLOW GREEN CUTS, GOOD RING
7670-7680	100%	Sltst, ltgy-mgy/brn, anhy, dol, sb blk-yp-sb plty, frm, sli slty/carb lam, GOOD YELLOW GREEN CUTS AND GOOD STRONG RING
7680-7700	60%	Sltst, gy-mgy/brn, dol, anhy, sft-frm, tr carb lam, FAIR YELLOW GREEN CUTS, GOOD RING
SAMPLE TOP OF THE CANE CREEK B ZONE HOT SHALE, 7701'		
TVD DEPTH = 7356' (-1507')		
7700-7720	70%	Sh, blk- pred dk gy, carb-v carb, occ sooty, sft-brit, sb blk-yp-fis, no fluorescence, FAIR CUTS, WITH MODERATE YELLOW GREEN RINGS
7720-7730	100%	Sltst, m-dkgy, arg, dol ip, sft-frm, tr carb lam
7730-7740	60%	Sh, blk, vcarb-carb, sft-frm, sooty ip, plty-sbblk, tr anhy incl tr clr clean xln salt (probable fracture fill)
7740-7780	100%	Sltst, ltgy-mgy/brn, v dol, w/ anhy incl, sft-frm, tr carb lam DULL YELLOW GREEN CUT AND RING, traces of clean clear salt xtls
(7752-7762) 20 bbl gain, associated with slow 100 unit increase in mud gas background. Raise mud weight to 17.0 lbs.		
7780-7790	100%	Sltst, ltgy-mgy/brn, aa, v dol, anhy ip, sft-frm, tr carb lam, decreasing cut and ring, traces of clean clear salt xtls, (probable fracture evidence)
(7780-7783) 5 bbl loss, associated with very fast drill break while sliding. Interpreted as crossing zone of microfractures.		
SAMPLE TOP OF THE CANE CREEK B ZONE L MARKER 7802'		
TVD DEPTH = 7368' (-1519')		
7790-7800	80%	Sltst, ltgy-gybrn cleaner, gritty, no salt incl, tr anhy incl
	20%	Sh, blk-dk gy, carb, sooty ip, sft-frm occ fis
7800-7852	100%	Sltst, gy-mgy/brn, dol, anhy, sft-brit, tr carb lam

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7852-7854 100% Sltst, aa, gy-mgy, dk gy ip, frm, blk, dol, tr of clean
 clear salt inclusions, distinct salt filled fracture faces in
 samples, decreasing cut and ring

(7852-7854) very fast drill break while sliding, very slight
 fluctuations in background gas. Interpreted as crossing zone
 of microfractures.

7854-7870 100% Sltst, aa.

7870-7880 70% Sltst, dkgy-mgy, dol, aa, anhy, sft-brit, tr carb lam
 30% Sh, blk-dk gy, dl, carb, sooty-slky, sft-frm, v slty,
 decreasing cut and ring.

7880-7890 40% Sh, blk-dk gy, carb, sooty, sft-frm, v slty
 60% Sltst, dkgy-ltgy/brn, arg, dol, sft-frm, sb blk tr anhy

SAMPLE TOP OF THE CANE CREEK B ZONE M MARKER 7894'
 TVD DEPTH = 7374' (-1525')

7890-7970 100% Sltst, m-ltgy, sft-frm, sb plty-irreg dol ip, occ carb lams,

7970-7980 80% Sltst, aa
 10% Anhy, bf tn brn, wh off wh, sft v amor, mott
 10% Sh, blk carb-vcarb, fis, sft, rr sooty

SAMPLE TOP OF THE CANE CREEK C ZONE ANHYDRITE 7980'
 NO TVD LOG TOP AVAILABLE.

7980-7987 20% Anhy, wh-bf, occ tn, sft, amor, mott, dns
 20% SH, aa blk, carb-vcarb, fis, rr sooty.
 60% Sltst, m-dkgy sft-frm sbblk-irreg, gritty, dol, occ carb
 lams.

TOTAL DEPTH = 7987'



ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL LOGGING — CORE and WATER ANALYSIS

2450 INDUSTRIAL BLVD.

PHONE 243-3044

GRAND JUNCTION, COLORADO 81505

COMPANY COLUMBIA GAS DEVELOPMENT CORPORATIONWELL NO. KANE SPRINGS FEDERAL #25-19-34-1LOCATION SEC. 34, T25S, R19E.ZONE OF INTEREST NO. 1INTERVAL: From 7642 To 7649DRILL RATE: Abv 10 min/ft Thru 2 min/ft Below 6 min/ft

MUD GAS-CHROMATOGRAPH DATA

	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	120	6480	1360	408	136		
During	3520	242450	38080	12320	5600		
After							

Type gas increase: Gradual ☐ Sharp ☒Gas variation within zone: Steady ☒ Erratic ☐ Increasing ☒ Decreasing ☐CARBIDE HOLE RATIO: $\frac{\text{GRAMS}}{\text{READING}}$ X Min. in Peak = _____Sensitivity: Poor ☐ Fair ☐ Good ☐

FLUO: Mineral ☐ Even ☐ Spotty ☐
 None ☒ % in total sample _____
 Poor ☐
 Fair ☐ % in show lithology _____
 Good ☐ COLOR: _____

CUT: None ☐ Streaming
 Poor ☐ Slow ☐
 Fair ☐ Mod ☐
 Good ☒ Fast ☐

COLOR: yel/gnSTAIN: None ☒ Poor ☐ Fair ☐ Good ☐ Live ☐ Dead ☐ Residue ☐ Even ☐ Spotty ☐ Lt. ☐ Dk. ☐POROSITY: Poor ☐ Fair ☐ Good ☐ Kind noneLITHOLOGY SHALE- blk-vdkgy carb frm subfis subsooty tr live oil on pitsSAMPLE QUALITY goodNOTIFIED J. DAVIS, K. GROVE. @ 17:45 HRS. DATE: 4-27-93REMARKS SAMPLES WASHED IN DAWN DETERGENTZONE DESCRIBED BY BROWN



ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL LOGGING — CORE and WATER ANALYSIS

2450 INDUSTRIAL BLVD.

PHONE 243-3044

GRAND JUNCTION, COLORADO 81505

COMPANY COLUMBIA GAS DEVELOPMENT CORPORATIONWELL NO. KANE SPRINGS #25-19-34-1LOCATION SEC. 34, T25S, R19E.ZONE OF INTEREST NO. 2INTERVAL: From 7554 To 7557DRILL RATE: Abv 13 min/ft Thru 7 min/ft Below 6 min/ft

MUD GAS-CHROMATOGRAPH DATA

	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before		NO PRE GAS BUSTER READINGS					
During *	5200	172800	78880	35840	8160		
After	4000	211200	51680	20160	4080		

Type gas increase: Gradual ☐ Sharp ☒Gas variation within zone: Steady ☐ Erratic ☒ Increasing ☒ Decreasing ☐CARBIDE HOLE RATIO: GRAMS READING X Min. in Peak = _____Sensitivity: Poor ☐ Fair ☐ Good ☐

FLUO: Mineral ☐ Even ☐ Spotty ☐
 None ☒ % in total sample _____
 Poor ☐
 Fair ☐ % in show lithology _____
 Good ☐ COLOR: _____

CUT: None ☐ Streaming
 Poor ☐ Slow ☐
 Fair ☐ Mod ☐
 Good ☒ Fast ☒

COLOR: yellowSTAIN: None ☒ Poor ☐ Fair ☐ Good ☐ Live ☒ Dead ☐ Residue ☐ Even ☐ Spotty ☐ Lt. ☐ Dk. ☒POROSITY: Poor ☐ Fair ☐ Good ☐ Kind some live oil in pits
none possible fractureLITHOLOGY SHALE BLK MFRM-BRIT BLKY VCARB SUBSOOTY-SUBVITREOUSSAMPLE QUALITY GOODNOTIFIED J. DAVIS, K. GROVE @ 2115 HRS. DATE: 4-27-93REMARKS * GOING THROUGH GAS BUSTER, 10-15' FLARE, YELLOWZONE DESCRIBED BY MARK KOURY,

ROCKY MOUNTAIN GEO-ENGINEERING

(303) 243-3044

WELL NAME: KANE SPRINGS FEDERAL #25-19-34-1
 COMPANY NAME: COLUMBIA GAS DEVELOPMENT CORP.

COUNTY: GRAND
 STATE: UTAH

FORMATION NAME	PROJ DEPTH	SAMPLE TVD	ELOG TVD	SUBSEAS (+/-)
PARADOX SALT #2	4175.00	3983.00	3977.00	1872.00
CLASTIC #2	4356.00	4390.00	4389.00	1460.00
SALT #3		4478.00	4470.00	1379.00
CLASTIC #3	4533.00	4565.00	4564.00	1285.00
SALT #4		4650.00	4644.00	1205.00
CLASTIC #4	4741.00	4766.00	4765.00	1084.00
SALT #5		4812.00	4806.00	1043.00
CLASTIC #5	4896.00	4928.00	4929.00	920.00
SALT #6		5012.00	4997.00	852.00
CLASTIC #6	5213.00	5264.00	5257.00	592.00
SALT #7		5286.00	5283.00	566.00
CLASTIC #7	5331.00	5382.00	5372.00	477.00
SALT #8		5392.00	5380.00	469.00
CLASTIC #8	5404.00	5459.00	5444.00	405.00
SALT #9		5506.00	5492.00	357.00
CLASTIC #9	5579.00	5631.00	5620.00	229.00
SALT #10		5673.00	5664.00	185.00
CLASTIC #10	5765.00	5821.00	5807.00	42.00
SALT #11		5861.00	5843.00	6.00
CLASTIC #11	5852.00	5903.00	5895.00	-46.00
SALT #12		5921.00	5913.00	-64.00
CLASTIC #12	5877.00	5927.00	5917.00	-68.00
SALT #13		5944.00	5949.00	-100.00
CLASTIC #13	6045.00	6134.00	6127.00	-278.00
SALT #14		6165.00	6159.00	-310.00
CLASTIC #14	6136.00	6249.00	6243.00	-394.00
SALT #15		6266.00	6260.00	-411.00
CLASTIC #15	6181.00	6301.00	6295.00	-446.00
SALT #16		6323.00	6317.00	-468.00
CLASTIC #16	6478.00	6477.00	6470.00	-621.00
SALT #17		6484.00	6485.00	-636.00
CLASTIC #17	6527.00	6515.00	6521.00	-672.00
SALT #18		6519.00	6527.00	-678.00
CLASTIC #18	6805.00	6752.00	6747.00	-898.00
SALT #19		6760.00	6755.00	-906.00
CLASTIC #19	7105.00	6949.00	6945.00	-1096.00
SALT #20		6995.00	6990.00	-1141.00
CLASTIC #20 REMNANT	7240.00	7072.00	7060.00	-1211.00
SALT #21		7079.00	7065.00	-1216.00
CANE CREEK A1 ANHYDRITE	7369.00	7530.00	7321.00	-1472.00
CANE CREEK A1 SHALE		7533.00	7322.00	-1473.00
CANE CREEK A2 ANHYDRITE		7543.00	7325.00	-1476.00
CANE CREEK A2 SHALE		7552.00	7329.00	-1480.00
CANE CREEK A3 ANHYDRITE		7563.00	7333.00	-1484.00
CANE CREEK A3 SHALE		7570.00	7336.00	-1487.00
CANE CREEK A4a ANHYDRITE		7576.00	7338.00	-1489.00
CANE CREEK A4a SHALE		7588.00	7342.00	-1493.00
CANE CREEK A4b ANHYDRITE		7594.00	7344.00	-1495.00
CANE CREEK A4b SHALE		7601.00	7346.00	-1497.00
CANE CREEK A5 ANHYDRITE (JAWS)		7616.00	7350.00	-1500.00
CANE CREEK B ZONE	7401.00	7627.00	7353.00	-1504.00
CANE CREEK B HOT SHALE	7405.00	7701.00	7356.00	-1507.00
CANE CREEK B ZONE L MARKER		7802.00	7368.00	-1519.00
CANE CREEK B ZONE M MARKER		7894.00	7374.00	-1525.00
TOTAL DEPTH		7987.00	7376.96	-1527.96

GEOLOGICAL SUMMARY AND ZONES OF INTEREST

The Columbia Gas Development Corporation's Kane Springs Federal #25-19-34-1, SENWNE Section 34, T25S, R19E, Grand County, Utah, was spud on March 19, 1993. A 20" conductor was set at 60', a 17 1/2" hole was drilled with air mist to 664' with 13 3/8" casing set at 664'. A 12 1/4" hole was drilled with air mist/water to 4389', and a 9 5/8" casing set at 4389'. A 8 3/4" hole was drilled with oil based mud to 7580', and 7" casing was set at 7579'. A 6" hole was drilled to a total depth of 7987', with the bottom of the hole projected to 88.40 degrees, along azimuth 159.70. The rectangular coordinates were 758.57S, and 163.02E.

OBJECTIVES

The primary objective of the Kane Springs Federal #25-19-34-1, was to drill horizontally into the Cane Creek B zone, in a potentially fractured reservoir consisting of black carbonaceous shales, anhydrites, and arenaceous, dolomitic, siltstones. After encountering a major show at 7642' the well continued to produce gas and oil jeopardizing future trips and planned coring operations. The decision was made to cease drilling at 7987' and forgo the plan to take the well horizontally another 1500' in the Cane Creek B zone.

REGIONAL CORRELATION

The classification of Hite and Buckner was used in numbering the Salt and Clastic Zones of the Paradox. The Clastic number is preceded by a corresponding overlying Salt Bed. Locally, Salt #2 is the top of the Paradox. Clastic #2 correlates to the Hovenweep Shale of the Southern Paradox Basin, and Clastic #3 correlates to the Gothic Shale. Clastic #4 Correlates to the Upper Desert Creek Formation, and Clastic #5 correlates to the Lower Desert Creek. Clastic #6 through #9 correlate to the Akah, and Clastic #10 through #19 correlates to Barker Creek Formation. Clastic #20 correlates to the Alkali Gulch and the Cane Creek Clastic questionably correlates to the Pinkerton Trail. (Hite and Buckner, RMAG-1981, Geology of the Paradox Basin, p. 150)

CONTROL WELLS

Three offset wells were used for correlation purposes during the drilling of the Columbia Gas #34-1; the Columbia Gas Kane Springs Federal #27-1 (1650' FSL, 1700' FEL) Sec. 27, T25S, R19E, Grand County, Utah, GL=5761', KB=5792', generally northeast; the Pure Oil Company, Big Flat Unit #5 (C NWSE) Sec. 27, T25S, R19E, Grand County, Utah, GL=5757', KB=5767' also generally northeast; the Enserch Exploration, Inc, Mineral Canyon Federal #1-3, Sec. 3, T26S, R19E, Grand County, Utah, GL=5865, KB=5875', generally southwest of the Columbia Gas #34-1.

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

HONAKER TRAIL

The Honaker Trail is Upper Pennsylvanian in age, and is predominantly limestones, with interbedded shales, siltstones, sandstones, and scattered chert nodules. The limestones were red orange to red brown, brown, occasionally dark brown, buff to cream, occasionally white, cryptocrystalline, slightly argillaceous, slightly fossiliferous, silty, and dense. The shales were red to orange to red brown, brown, gray to gray green, silty, calcareous, to non calcareous, micaceous, and slightly sandy. The sandstones were clear translucent to slightly frosted, light gray to gray green, very fine to medium with occasionally coarse grained, subangular to subrounded, and occasionally well rounded in part, poorly sorted to moderately well sorted, with the occasional unconsolidated and friable, predominantly calcareous clay cementing that graded toward a limy matrix.

Air mist/water drilling operations made sample quality very poor to non existent at times. Between 3120' and 3230', a water flow caused erratic drilling operations. As a result of this water flow, the air mist operation drilled with no returns for varying periods of time, until the hole would unload violently. Accurate sampling of drill cuttings was impossible. Wide fluctuations in drill rate from 30 seconds per foot to nearly 5 minutes per foot, made any kind of correlation nearly impossible. Geological supervision began at 3960' just above a significantly high Paradox Salt #2, the first salt encountered in the well.

PARADOX FORMATION

Generally, Salt #3 through Salt #21 were identified by increased penetration rate, and nearly 100% salt in samples. Since an oil based mud system was used instead of a water based one, the salts did not cavitate. Generally, very little hydrocarbon mud gas (mostly methane) was circulated from these salts. Several salt intervals had higher gamma ray deflections indicative of potash, (Sylvite or Carnallite) at or near the top of the salt sequence. Orange Sylvite was occasionally observed in samples in amounts rarely over 10% of the sample. Carnallite was rarely seen in cuttings greater than one or two percent, predominantly because PDC cuttings made recognition of carnallite difficult.

Generally, Shales, siltstones and anhydrites were the dominant rock types in the clastic zones. Drill rates were generally slow to very slow averaging from 4 to 20 minutes per foot. The shales were typically black to occasionally dark gray, carbonaceous to very carbonaceous, sooty in part, slightly calcareous in part, The

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

siltstones were medium to light gray, calcareous to dolomitic, and occasionally argillaceous. The anhydrites were white to off white, tan to buff, amorphous to very finely crystalline to rarely coarsely crystalline, and had a bright white mineral fluorescence.

Minor differences between sample tops and E-log tops of the clastic zones were predominantly due to the generally poor resolution in older E-logs, and the thin nature of anhydrite caps over the hotter silts and shales. In all control wells, most tops on the logs were picked where the gamma ray deflection began and not at the first evidence of clastics, usually a sudden increase in anhydrite in samples with an associated decrease in the penetration rate. As a convention, all sample tops in the Kane Springs Federal #25-19-34-1 were picked at the first change from a salt to a clastic.

STRUCTURAL ANOMALIES

Paradox Salt #2, locally the first salt in the Paradox, came in 281 feet high to the 27-1 well, the nearest correlation. Because of poor sample quality during the air misting/water phase of the drilling, only an increased drill rate and a moderate increase in chloride concentration confirmed the pick. Because of a history of extreme fluctuations in the top of the Paradox Salt, at that point in the drilling activity, no one could predict whether Salt #2 had just thickened considerably or one or more of the deeper salts had thickened and pushed all the overlying beds up in relation to the control wells. Because of the poor sample quality, and erratic drill rate, an accurate correlation with the #27-1 was not possible, until after intermediate casing was set, and decent drill rate and samples were collected and analyzed. The wellsite geologist had to take the worst case scenario and assumed that the well had a normal section similar to the #27-1 well, and picked the intermediate casing point at 4389'. As electric logs later proved, intermediate casing was actually set in the top of Clastic #2, instead of in Clastic #3 as planned, and Salt #2 was abnormally thick in relation to the control wells.

Drilling out from under casing with a PDC bit, the well encountered Salt #3 at 4470', where a sudden deviation from 2 1/4 degrees to 4 degrees in less than 150' required pulling the PDC bit and running in with a toothed bit to bring the deviation back. By Salt #4, a correct correlation to the #27-1 indicated that the #34-1 was actually 52' high to the #27-1.

Observations made by this geologist on the consistency of the salt in relation to previous wells drilled in the unit indicated that the upper salts in the #34-1 had a weaker crystalline matrix.

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

Coarse crystalline salts were breaking along crystal boundaries and not being shaved as with typical PDC cuttings. This tendency continued throughout the salts until Salt #19, when typical PDC type cuttings were observed in samples.

For the most part the #34-1 ran consistently high to the control wells throughout all the salt and clastic zones down to the top of Salt #13, 5949'. Salt #13 thickened considerably in relation to the #27-1. Although the thickness of Salt #13 is highly variable in all three control wells, the general trend of thicker intervals continued into Clastic #13, leaving the #34-1 well generally flat to the #27-1. This general thickening continued to Salt #16, where the #34-1 was running 34' low to the #27-1 well.

Salt #18 thinned considerably. At 6706' a major lost circulation occurred, with an initial loss of 800 barrels of fluid into the formation within seconds. The drill pipe became temporarily stuck, and the rig was unable to gain returns by pumping down the backside. After about 30 minutes of jarring, the string came free. A variety of lost circulation materials were pumped down the hole to heal the problem, to no avail. Over a three day period, a total of 2570 barrels of oil based mud, and over 4130 barrels of lcm loaded water failed to heal the hole. A casing log run on the hole prior to cementing indicated that a 5' rip in the casing just above the intermediate casing string shoe at 4370' may have compounded the problem. Eventually both intervals were successfully cemented, and drilling resumed.

Clastic #18, found locally to be highly variable, also thinned. By the top of Salt #19, the #34-1 was running 9' high to the #27-1. Because of the general thinning in the overlaying beds, the decision was made to move the kick off point up from 6925' to 6867', just in case the Cane Creek came in high to seismic estimates.

Salt #20 continued to thin slightly. The last confirming marker for the top of the Cane Creek is Clastic #20, a very good marker bed with anhydrite at the upper and lower boundaries and a good 8' of shale in the core, in the local area. In the #34-1, the shale core and apparently squeezed out by salt movement, leaving a very thin anhydrite residue, just noticeable in both samples, and on the MWD log. This residue of Clastic #20 is noted here as Clastic #20 Remnant on the listing of formation tops in this report.

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

SHOWS

Because of the thickening of Salt #21, a soft landing was achieved in the Cane Creek. The Top of the Cane Creek (7321') actually came in 99' low to the #27-1. Casing was set in the base of the A3 anhydrite. At 7642-7649', at a black carbonaceous shale identified within Columbia Gas geology department as the "mouth of Jaws" the hole produced 3520 units of gas with considerable heavies (C3's and C4's), and a trace of oil on the pits. The well was put on the gas buster, and eventually a 6250 unit total gas show with considerable oil on the pits, and a 10'-15' yellow orange flare. A very black, very carbonaceous, sooty shale with no fluorescence, but good yellow green cuts, and strong rings was observed in samples. The mud system was weighted up to 16.0 pounds per gallon, and the drill string was tripped for a steerable motor at 7656'. On returning to bottom, the trip gas generated was circulated out through the gas buster with a 11,360 unit trip gas show. 41 barrels of oil were gained in the mud system, and a 25' yellow orange flare. The well was temporarily put on choke, and the mud system was weighted up to 17.0#. The Cane Creek Hot Shale was encountered at 7701', followed with a thin silty stringer in the core and a very thin hot shale below that gave yellow green cuts and a fair to good rings, in well washed samples. Classic clean B zone siltstone began about 7740'. This interval gave significant trip gas, and downtime gas for the remainder of the well, necessitating extended circulations of gas from the hole through the gas buster, and occasionally on choke.

Between 7752 and 7762 a 20 barrel gain was recorded on the Totco gain/loss detector. The gain was associated with a slow 100 unit increase in background gas, and a very slight increase in chromatographic heavies. Samples indicated minor amounts of very clean crystalline salt, and traces of fracture evidence. The interval is interpreted to be a zone of microfractures to small fractures with a small oil seep. Heavy mud weight may have suppressed the oil flow significantly.

Between 7780' and 7783', a fast drilling break while the bit was sliding was circulated up with no increase in gas background. Samples circulated up from the interval indicated minor amounts of clean crystalline salt, and traces of micro fractures. The formation took approximately 5 barrels of mud. Siltstone circulated up from the interval had slightly coarser texture and proportionately less argillaceous laminations indicative of the typical B zone coarse siltstones, with a fineing downward cycle. Heavy mud weight may have suppressed any oil flow from this interval.

COLUMBIA GAS DEVELOPMENT CORP.
KANE SPRINGS FEDERAL #25-19-34-1

Between 7852' and 7854' another fast drilling break while sliding was circulated up with a very minor increase in gas and no indication in samples other than a moderate amount of clean crystalline salt inclusions, and rare salt growths on micro fractures on select cuttings. Traces of anhydrite were also observed imbedded in cuttings. The siltstone circulated up from the interval was slightly more argillaceous than previous samples. Heavy mud weight may have suppressed any oil flow from this interval.

At 7980' samples circulated up indicated an increase in anhydrite and black carbonaceous shales. This was interpreted as the top of the Cane Creek C anhydrite. At 7987' the drill string was tripped to put on a double bend directional tool, pipe got stuck in the casing, believed caused by junk in the hole. The rig subsequently tripped in with a magnet, and later with a junk basket and a mill to clear the hole. During this milling operation, the decision was made by all the partners in the well, to TD the well at 7987', predominantly due to pressure limitations on the pumps, high mud weight, and the last casing shoe test limitations.

CONCLUSION

Prior to the drilling of the well, a general fear that the #34-1, if produced, might tap an already depleted reservoir tapped by the #27-1 has been put to rest by the quality of the show at the top of the B zone. The 17.5 pound mud needed to hold back the formation indicates that the formation pressures in the #34-1 are stronger than in the #27-1, less than 3000' feet away at the same horizon. Certainly, a continuous drilling program needs to be initiated to prove up the unit's potential.

In conclusion, the Columbia Gas Development Corporation's Kane Springs #25-19-34-1, after extensive analysis of samples, hydrocarbon gas, and MWD logs, was determined to have penetrated the entire Cane Creek B zone, and was deemed to be economically productive. At this time, the Kane Springs Federal #25-19-34-1 is pending completion.

NORWARD

FIELD NOTES

RECEIVED

JUN 14 1993

CONFIDENTIAL

CUSTOMER Columbia Gas Development

REPRESENTATIVE Tony Cheatham

DIVISION OF

WELL NAME Kane Springs Fed. 25-19-34-10" GAS & MINING

WELL NUMBER ON FIELD

DATE May 21, 1993

PAGE 1 OF

METER RUN SIZE: 1/2"

INS. 1/2"

STATIC RANGE

PSIG

DIFF. RANGE

FORMATION Kane Creek

INTERVAL Horizontal

TEST OPERATOR(S) B. Fields, R. Parkhill

TOTAL

Date and Time	Flow or Shut In Dia (INS)	WELLHEAD DATA				Choke Size (GALPS)	GAS METER DATA					Can Gas MMSCF	CONDENSATE OR OL. PRODUCTION						WATER PRODUCTION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		TNG Pres (PSIG)	Flow Temp (F)	CSG Pres (PSIG)	Outlet Plate Size (INS)		Static Pres (PSIG)	DRI (INS)	Temp (F)	Rate MMSCFD	Meter Size		Type	Tank #	Cap	BBLS @ 5.4	TRK/WT	Meter Size	Type	Tank #	Cap	BBLS @ 5.4	BBL/WT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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PAGE CHECK

13.35 lbs/gal

16.5 lbs/gal

9.1 lbs/gal

2065

41.0

NOTWARD FIELD NOTES
CUSTOMER Columbia Gas Development
REPRESENTATIVE Jerry Cheatham
WELL NAME Kane Springs Fed. 25-19-8

FIELD NOTES

REPRESENTATIVE Jeffery Chastain

REPRESENTATIVE Barry Chaffin
WELL NAME Kane Springs Fed 25-19-84-1

WELL NUMBER OR FIELD

DATE May 21, 1913

MEIER RUN SIZE: 11.P.

STATIC RANGE:

FORMATION Kane Creek

TEST OPERATOR(S) B. Fields, R. Parkhill

PSIC

DII T. RANGE.

INTERVAL Horizontal

TUN 19

[illegible]

PAGE CHECK

NORWARD

FIELD NOTES

CUSTOMER Columbia Gas Development

REPRESENTATIVE Terry Cheatham

WELL NAME Kane Springs Fed 25-10-34-1

WELL NUMBER OR FIELD

DATE May 21, 1993

PAGE 3

OF

METER RUN SIZE: 1 1/2"

INS.

L²

INS

STATIC RANGE

PSIG

DIFF RANGE

IN H₂O

FORMATION Kane Creek

INTERVAL Horizontal

TEST OPERATOR(S) B. Fields, R. Parkhill

T.U. # 191

Date and Time	Log or Serial No.	WELLHEAD DATA				GAS METER DATA					CONDENSATE OR OIL PRODUCTION						WATER PRODUCTION					
		ING Pres	Flow Temp	CSG Pres	Choke Size	Orifice Hole Size	Static Pres	Diff (PSIG)	Temp (F)	Rate MMSCFD	Cum Gas MMSCF	Meter Size		Type		Tank #	Meter Size		Type	Tank #		Meter #
		(PSIG)	(F)	(PSIG)	(in)	(in)	(PSIG)					Reading (DDIS)	Gain (FOLS)	Total (Inches)	Gain (DDIS)	() Tank	Reading (DDIS)	Gain (DDIS)	() Tank	Reading (DDIS)	Gain (DDIS)	() Meter
Previous Readings																						
2010																						
2020		3350		845																		
2030		3505		845																		
2040		3640		840																		
2050		3695		825																		
2053																						
2100	1	3720		825																		
2130	1	3820		800																		
2200	2	3875		800																		
2230		3900		800																		
2300	3	3915		795																		
2330		3930		790																		
2400	4	3935		795																		
2430		3937		790																		
2100	5	3941		795																		
0130		3945		789																		

Oil running in with pressure records

Records Set at 7,040 K.B. 27'

Oil is out of hole

Opened choke to 4/16"

PAGE CHECK

4055

FIELD NOTES:

REPRESENTATIVE Terry Cheatham

WELL NAME Kane Springs Fed 15-19-34-1

WELL NUMBER OR FIELD

DATE MAY 22, 1943.

PAGE 4 . . . 0

METER RUN SIZE: 11 P 3.826

INS. LP

STATIC RANGE 0 - 1550

PSIG

DEF RANGE 0-200

FORMATION Kane Creek

INTERNAL HORIZONS

TEST OPERATOR(S) B. Fields, R. Packhill

104

[illegible]
$$\overline{504.5}$$

CUSTOMER Columbia Gas Development

REPRESENTATIVE W. L. Heath

WELL NAME Kane Springs Fed 25-A-34-1

WELL NUMBER OF FIELD 1

METER RUN SIZE: 1 1/2" 3.826

LINE P

INS

STATIC RANGE 0-1500

PSIG

DIFF. RANGE 0-200

IN H.O.

FORMATION Kane Creek

INTERVAL Horizontal

TEST OPERATOR(S) B. Fields, R. Parkhill

TU # 19

WELL HEAD DATA												CONDENSATE OR OIL PRODUCTION												WATER PRODUCTION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Date and Time	Flow Sheet in Dwg. (PSIG)	TRG Pres. (PSIG)	Flow (GPM)	CSG Pres. (PSIG)	Choke Size (inches)	GAS METER DATA						CONDENSATE OR OIL PRODUCTION						WATER PRODUCTION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
						Inlet Rate Size (PSIG)	Static Pres. (PSIG)	Val (inches)	Temp (F)	Flow MMSCF/D	Cum Gas MMSCF	Meter Size	Type	METER		TANK		In Tank		In Meter		Meter Size	Type	TANK		In Tank		In Meter																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
														Reading (MMS)	Gain (MMS)	Total (Inches)	Gain (MMS)	DBLS. CAY	Cum. (DBLS)	Reading (MMS)	Gain (MMS)			Total (Inches)	Gain (MMS)	DBLS. CAY	Cum. (DBLS)	Reading (MMS)	Gain (MMS)	Total (Inches)	Gain (MMS)	DBLS. CAY	Cum. (DBLS)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
0530	4	800	72	810	9/64	1250	250	6	110		.044			46.5	107.72		107.72	6.08																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

FIELD NOTES

DATE May-22, 1993 PAGE 6 OF 8
METER RUN SIZE: I/P 3.826 INS I/P INS
STATIC RANGE 0-1500 PSIG DIFF. RANGE 0-200 IN H₂O
FORMATION KAWE CREEK INTERVAL horizontal
TEST OPERATOR(S) B. Fields, R. Parkhill T.O. # 19

[illegible]

CUSTOMER Columbia Gas Development

REPRESENTATIVE Terry Chatham

WELL NAME Kane Springs Fed. 25-19-34-1

WELL NUMBER OR FIELD

METER / UN SIZE: 1 1/2" 3.826

INS. 1 1/2"

STATIC RANGE 0-1500

PSIG

DIFF. RANGE 0-200

IN. 1 1/2"

FORMATION Kane Creek

INTERVAL Horizontal

TEST OPERATOR(S) J. Fields, R. Parkhill

TIME 19

DATE AND TIME		WELLHEAD DATA			GAS METER DATA						CONDENSATE / OIL PRODUCTION						WATER PRODUCTION						
Date and Time	Well Shut In Dur. (HRS)	WKG Pres (PSIG)	Flow Temp (F)	CSG Pres (PSIG)	Choke Size (64ths)	Orifice Pipe Size (INS)	Static Pres (PSIG)	DN (INS)	Temp (F)	Rate (MMSCFD)	Cum. Gas (MSCF)	Tank #	Cap	DN (INS)	BOLAR	Tank #	Cap	DN (INS)	BOLAR				
												Meter Size		Type		Meter Size		Type		Meter Size		Type	
												METER		TANK		TANK		METER		TANK		TANK	
												Reading (INCHES)	Gain (INCHES)	Total (Inches)	Gain (INCHES)	DN (INS)	Cum (MCS)	Reading (INCHES)	Gain (INCHES)	Total (Inches)	Gain (INCHES)	DN (INS)	Cum (MCS)
06	22	287	72	240	30/64	1.250	250	5	122	308	312					0.2				173.80	60R		
0430	23	287	72	240	30/64	1.250	250	5	122	308	315					16.25	27.11	651.3	701.0	472			
0100		287	72	230			250	5	122														
0130	24	287	72	230	30/64	1.250	250	5	122	308	328					34.0	29.64	171.42	732.64	394.1			

CUSTOMER: Columbia Gas Development

REPRESENTATIVE Jerry Sheatham

WELL NAME Kane Springs Fed. 25-19-34-1

WELL NUMBER OR FIELD

METER RUN SIZE. I.P. 3.826

INS

15

1145

STATIC RANGE 0-1500

... / SIC

DIFF

E C-290

$$-NH_2$$

FORMATION Kane Creek

Interval Horizontal

TEST OPERATOR(S) B. Fields, B. Plunkett

1009A

[illegible]

5045

CUSTOMER Columbia Gas Development

REPRESENTATIVE Jerry Heatham

WELL NAME Kane Springs Fed. 25-19-34-1

WELL NUMBER OR FIELD Kane Springs

DATE May 23, 1993

PAGE 9 OF 9

METER RUN SIZE 1 1/2" 826

INS 1"

INS.

STATIC RANGE 0-1500

PSIG

DIFF. RANGE 0-200

IN H₂O

FORMATION Kane Creek

INTERVAL Horizontal

TEST OPERATOR(S) B. Fields, R. Berkhill

JUL 19

WELL HEAD DATA					GAS METER DATA							CONDENSATE OR LIQUID PRODUCTION						WATER PRODUCTION					
Date and Time	Static Press. (PSIG)	Flow Temp. (F)	CSG Pres. (PSIG)	Flow Size (inches)	Orifice Plate Size (inches)	Static Press. (PSIG)	IN. (inches)	Temp. (F)	Rate MMSCF/D	Conn. Gas MMSCF/D	Rate MMSCF/D	Conn. Gas MMSCF/D	Rate MMSCF/D	Conn. Gas MMSCF/D	Rate MMSCF/D	Conn. Gas MMSCF/D	Rate MMSCF/D	Conn. Gas MMSCF/D	Rate MMSCF/D	Conn. Gas MMSCF/D			
Previous Readings	292	72	810	30/64	1.250	250	5	122	.368	.367													
0530	28	292	72	820	30/64	1.250	250	5	122	.308	.380												
0600		182	72	820		250	5	122															
0630	29	292	71	820	30/64	1.250	245	5	124	.305	.393												
0700		283	72	820		245	5	124															
0730	30	283	72	820	30/64	1.250	245	5	124	.305	.406												
0800		283	72	820		245	4	124															
0830	31	282	72	820	30/64	1.250	245	4	124	.272	.417												
0900		282	72	820		245	4	124															
0930	32	282	72	820	30/64	1.250	245	4	124	.272	.428												
1000		280	72	820		245	4	124															
1030	33	280	72	820	30/64	1.250	245	4	124	.272	.439												
1100		280	72	820		245	4	124															
1130	34	280	72	820	30/64	1.250	245	4	125	.272	.450												
1200		280	72	820		245	4	125															
1230	35	280	73	820	30/64	1.250	245	4	125	.272	.461												
1300		280	73	820		245	4	125															
1330	36	280	74	820	30/64	1.250	245	4	125	.272	.472												
1400		277	74	820		245	4	130															
1430	37	275	72	820	30/64	1.250	245	4	131	.271	.483												
1500		275	72	820		245	4	134															
PAGE CHECK											.116												

2 of 4

WILL NUMBER OR FIELD RAVE Springs

AGE 10 OF

STATIC RANGE 0-1500 PSIG DIFF RANGE 0-200 IN H₂O

TEST OPERATOR(S) B. Fields, R. Parkhill | | | 10/19

Date Time	Flow or Shut In Dn. (HRS)	WELL HEAD DATA			(choke Size (4ths)	GAS METER DATA						CONDENSATE OR OIL PRODUCTION						WATER PRODUCTION						BSF													
		TBG Pres (PSIG)	Flow Temp (F)	CSG Pres. (PSIG)		Online Plate Size (INS)	Static Pres. (PSIG)	Dil (INS)	Temp (F)	Rate MMSCF/D	Cum Gas MMSCF	Tank # 1-2-3 Cap 400 BBL/S @ 1.67 EOL/H		Meter Size 1" Type Turbine		Tank # Cap BBL/S @ 1.67/H		Meter Size 1" Type Turbine		Tank # Cap BBL/S @ 1.67/H																	
												METER		TANK		METER		TANK		METER		TANK															
												Reading (BBL/S)	Gain (BBL/S)	Total (Inches)	Gain (BBL/S)	Reading (BBL/S)	Gain (BBL/S)	Total (Inches)	Gain (BBL/S)	Reading (BBL/S)	Gain (BBL/S)	Total (Inches)	Gain (BBL/S)			Reading (BBL/S)	Gain (BBL/S)	Total (Inches)	Gain (BBL/S)								
Previous Reading	37	275	72	820	30/64	1.250					.483	G.A. Tank #2	78.0			101.10	0.0					0.0															
1:30	38	274	72	820	30/64	1.250	245	4	134	.270	.494	531.1		90.5	20.87	501.0	101.77	.1	.1					2.4	0.1												
1:00		275	72	820			245	4	135			Water Weight	16.38	LBS/GAL		PH-8	375,000	PPM	Chloride																		
1:30	39	275	72	810	30/64	1.250	245	4	136	.269	.505	547.1		105.5	25.05	601.20	102.22	.2	.1					2.4	0.2						19% Based on Mud						
1:20		274	72	810			245	4	137																												
1:10	40	274	72	810	30/64	1.250	245	4	134	.270	.516	573.1		117.25	19.2	670.94	102.64	.2	.0																		
							Note: STARTED Injecting Brexit 8150 chemical @ wellhead 2000 HRS 5-22-93																														
1:00																																					
1:30	41	273	72	805	30/64	1.250	245	4	135	.270	.527	590.1		121.0	22.96	751.1	113.6	.3	.1					2.4	0.3						49% Based on Mud						
1:20		270	72	800			245	4	134																												
1:10	42	272	72	805	30/64	1.250	245	4	135	.270	.538	586.1		122.5	19.21	864.92	116.91	.3	.0												1.4% Based on Mud						
2:00		272	72	805			245	4	136																												
2:10	43	272	72	805	30/64	1.250	245	4	137	.269	.549	570.1		156.5	23.38	961.12	118.19	.3	.0												4% Based on Mud						
2:10		270	72	800			245	4	136																												
2:20	44	270	70	800	30/64	1.250	245	4	136	.269	.560	580.1		167.5	19.31	1140.88	120.58	.3	.0												1.0% Based on Mud						
2:00		271	72	800			245	4	136																												
2:30	45	271	70	800	30/64	1.250	245	4	136	.269	.571	563.1		152.0	19.22	1081.16	121.78	.3	.0												38% Based on Mud						
2:20		271	70	800			245	4	136																												
2:30	46	270	70	800	30/64	1.250	245	4	136	.269	.582	610.1	Opposing 13"	24.0	9.37	1410.88	123.15	.3	.0												4% Based on Mud						
2:20		270	70	800			246	4	136																												
2:30	47	270	70	800	30/64	1.250	245	4	136	.269	.593	639.1		24.5	11.54	1420.84	123.69	.3	.0												6% Based on Mud						
PAGE CHECK												110					198.72				198.72																

FIELD NOTES

NUMBER OR FIELD

01

INS

IN. 14.0

MA 19

4074

CUSTOMER Columbia Gas Development

REPRESENTATIVE Serry Cheatham

WELL NAME Kane Springs Fed 25-19-34-1

WELL NUMBER OF FIELD

DATE May 24, 1943

PAGE 12

OF

METER RUN SIZE H.P. 3-826

INS

IP

INS

STATIC RANGE 0-1500

PSIG

DIF. RANGE 0-200

IN H.O

FORMATION Kane Creek

INTERVAL Horizontal

TEST OPERATOR(S) B. Fields, R. Parkhill

U. # 19

Date and Time	Turbine Shut In Dur. (HRS)	WELL HEAD DATA				GAS METER DATA						CONDENSATE OR OIL PRODUCTION						WATER PRODUCTION						BS:W	
		TBG Pres (PSIG)	Flow Temp (F)	CSP Pres (PSIG)	Choke Size (64ths)	Orifice Pipe Size (INS)	Static Pres (PSIG)	Diff (INS)	Temp. (F)	Rate MMSCF/D	Cum. Gas MASCF	Tank # 1-2-3 Cap 400 BBLS @ 167 BBL/IN						Tank # Cap BBLS @ BBL/IN							
												Meter Size		Type		Meter Size		Type		Meter Size		Type			
												Reading (BBL/S)	Gain (BBL/S)	Total (Inches)	Gain (BBL/S)	B/Tank	L/Meter	Reading (BBL/S)	Gain (BBL/S)	Total (Inches)	Gain (BBL/S)	B/Tank	L/Meter		
0600	51	270	70	800	30/64	1.250	245	4	136	.269	.637	537.1		585.5	20.88	501.0	1755.87	.4	0			0.4	0.4	40% Sand & Mud	
0630	52	270	70	800	30/64	1.250	245	4	136	.269	.648	610.1		96.5	19.37	440.88	1374.24	.4	0			0.4	0.4	40% Sand & Mud	
0600		270	70	800			245	4	134																
0630	53	270	70	800	30/64	1.250	245	4	136	.269	.659	479.1		110.5	23.38	561.12	1397.61	.4	0			0.4	0.4	40% Sand & Mud	
0700		270	70	790			245	4	136									.5	1			2.4	0.5		
0730	54	270	70	790	30/64	1.250	245	4	136	.269	.670	611.1		120.5	16.7	400.3	1414.32	.5	0			0.5	0.5	50% Sand & Mud	
0800		270	70	790			245	4	136	WATER weight 0.7 LBS/gal PH-2								.5	0			0.5	0.5		
0830	55	270	70	785	30/64	1.250	245	4	136	.269	.681	483.1		135.0	24.21	581.16	1408.53	.5	0			0.5	0.5	40% Sand & Mud	
0900		270	70	780			245	4	135																
0930	56	271	71	785	30/64	1.250	245	4	136	.269	.692	610.1		146.0	18.37	440.88	1456.90	.5	0			0.5	0.5	30% Sand & Mud	
1000		272	72	780			245	4	136																
1030	57	272	72	780	30/64	1.250	245	4	136	.269	.703	610.1		159.0	21.71	521.01	1478.61	.5	0			0.5	0.5		
1100		272	72	780			245	4	136																
1130	58	272	72	785	30/64	1.250	245	4	136	.269	.714	637.1		171.5	20.87	501.0	1499.48	.5	0			0.5	0.5		
1200		270	72	785			245	4	136																
1230	59	270	72	785	30/64	1.250	245	4	136	.269	.725	611.1		181.5	16.70	420.80	1516.18	.5	0			0.5	0.5		
1300		270	72	785			245	4	136			Tank # 2		13.5											
1330	60	270	72	785	30/64	1.250	245	4	136	.269	.736	637.1		24.0	17.53	420.84	1533.71	.5	0			0.5	0.5		
1400		268	72	785			245	4	136																
1430	61	267	72	785	30/64	1.250	245	4	136	.269	.747			36.5	20.87	500.88	1559.58	.6	.1			2.4	0.6	70% Sand & Mud	
1500		267	72	785			245	4	136																
PAGE CHECK												.170				178.71	178.71		.2				0.6		

245

CUSTOMER Columbia Gas Development

REPRESENTATIVE Jerry Cheatham

WELL NAME Kane Springs Federal 25-19-34-1

WELL NUMBER OR FIELD Kane Springs

DATE May - 24, 1993

PAGE 13

OF

METER RUN SIZE: H.P. 3.826

INS. 1"

INS

STATIC RANGE 0-1500

PSIG

DIFF. RANGE 0-200

IN H.O

FORMATION Kane Creek

INTERVAL horizontal

TEST OPERATOR(S) B. Fields R. Parrish

TUE 15

Date and Time	Flow or Shut In Dur (HRS)	WELL HEAD DATA				Choke Size (64ths)	GAS METER DATA						CONDENSATE OR OIL PRODUCTION						WATER PRODUCTION						RSLW					
		TBG Pres. (PSIG)	Flow Temp (°F)	CS3 Pres. (PSIG)	Orifice Plate Size (INS)		Static Pres. (PSIG)	Orifice (INS)	Temp (°F)	Rate MMSCF/D	Cum Gas MMSCF	Tank #	Cap	BBLS @ 167 BBL/IN	Meter Size	Type	Tank #	Cap	BBLS @ 167 BBL/IN	Meter Size	Type	Reading (BBL/S)	Gain (BBL/S)	Total (Inches)		Gain (BBL/S)	9BLS/ DAY	Cum BBL/S		
Flow readings																														
1530	61	267	72	785	30/64	1.250					.747	G.O.P. #2	365			1554.58	.6											0.6		
1600	62	267	72	785	30/64	1.250	245	4	136	.269	.758	537.1		49.0	20.87	501.10	1575.45	.6	0									0.6		
1630	63	267	72	785	30/64	1.250	245	4	136	.269	.769	610.1		600	18.37	440.88	1593.82	.6	0									0.6		
1700		266	72	785			245	4	136																					
2- Gas samples taken container # W61, 11M.83 #1258 AND # 11M.81 1146																														
2- Oil samples 1- WATER Sample																														
Samples to be taken to CORE LAB IN CASPER Wyo. 420. W. First St. phone # (307) 235-5141 by Norward.																														
1730	64	266	72	785	30/64	1.250	245	4	136	.269	.780	611.1		70.0	16.70	400.10	1610.52	.7	1									0.7	.5% mud	
1800		266	72	785			245	4	136									.7	0									0.7		
1900	65	265	72	780	30/64	1.250	245	4	136	.269	.791	610.1		81.0	18.37	411.88	1628.89	.7	0									0.7		
1930	66	265	72	780	30/64	1.250	245	4	136	.269	.802	584.1		93.0	20.04	440.92	1648.93	.7	0									0.7		
2000		265	72	780			245	4	136									.7	0									0.7		
2030	67	265	72	780	30/64	1.250	245	4	136	.269	.813	655.1		103.25	22.12	411.82	1666.05	.7	0									0.7		
2100		265	70	780			245	4	136									.7	0									0.7		
2130	68	265	70	780	30/64	1.250	245	4	136	.269	.824	548.1		115.5	20.46	440.98	1686.51	.7	0									0.7		
2200		265	70	780			245	4	136									.7	0									0.7		
2230	69	264	70	780	30/64	1.250	245	4	136	.269	.835	671.1		125.5	22.7	400.8	1703.21	.7	0									0.7		
2300		262	70	780			245	4	136									.7	0									0.7		
PAGE CHECK											088						148.63											0.7		

3 of 5



DATE May 24, 1963 PAGE 14 OF
NET RUN SIZE: HI 3826 INS. LP INS.
STATIC RANGE 0-1500 PSIG DIFF RANGE 0-200 IN H.O.
FORMATION Kane Creek INTERVAL Horizontal
TEST OPERATOR(S) B. Fields, B. Parkhill TU. 19

[illegible]



WELL NUMBER OR FIELD

PAGE

OF

METER RUN SIZE: H P.

INS.

LF

INS

STATIC RANGE

PSIG

DIFF. RANGE

IN. 11.0

FORMATION Long Creek

INTERVAL Horizontal

TEST OPERATOR(S) D. F. Gd

11

TU.#

[illegible]

RECEIVED

JUN 14 1993

COBB DIRECTIONAL DRILLING \ HORIZONTAL TECHNOLOGY

CONFIDENTIAL

DIVISION OF

COLUMBIA GAS CO. GAS & MINING

CANE SPRINGS FEDERAL #25-19-34-1 \ GRAND CO\UTAH

MINIMUM CURVATURE CALCULATIONS

10-JUN-93 Page 1

MEASURED	INC.	DIR.	TVD	VERT.	N / S	E / W	LEASE LINE	CLOSURE	DLEG
DEPTH	Deg	Deg	(Ft)	(Ft)	(Ft)	(Ft)	FSL	FWL	SEV.
(Ft)							(Ft)	(Ft)	/100(Ft)
0.0	0.00	N 0.00 E	0.0	0.0	0.0	0.0	0.0	0.0	0.00
100.0	0.15	N 7.66 E	100.0	-0.1	0.1	0.0	0.0	0.0	0.15
200.0	0.18	N 2.96 W	200.0	-0.4	0.4	0.0	0.0	0.0	0.04
300.0	0.40	N 23.85 W	300.0	-0.9	0.9	-0.1	0.0	0.0	0.26
400.0	0.46	N 33.24 E	400.0	-1.5	1.5	-0.0	0.0	0.0	0.46
500.0	0.54	N 29.73 W	500.0	-2.3	2.3	-0.1	0.0	0.0	0.60
600.0	0.50	N 24.07 W	600.0	-3.1	3.1	-0.5	0.0	0.0	0.06
700.0	0.29	N 40.52 W	700.0	-3.8	3.7	-0.8	0.0	0.0	0.23
800.0	0.30	N 39.78 W	800.0	-4.2	4.1	-1.1	0.0	0.0	0.01
900.0	0.30	N 38.27 W	900.0	-4.7	4.5	-1.5	0.0	0.0	0.01
1000.0	0.28	N 48.38 W	1000.0	-5.1	4.9	-1.8	0.0	0.0	0.05
1100.0	0.28	N 48.08 W	1100.0	-5.5	5.2	-2.2	0.0	0.0	0.00
1200.0	0.25	N 57.47 W	1200.0	-5.9	5.5	-2.5	0.0	0.0	0.05
1300.0	0.31	N 63.98 W	1300.0	-6.2	5.7	-3.0	0.0	0.0	0.07
1400.0	0.23	N 68.22 W	1400.0	-6.5	5.9	-3.4	0.0	0.0	0.08
1500.0	0.33	N 64.49 W	1500.0	-6.8	6.1	-3.9	0.0	0.0	0.10
1600.0	0.40	N 48.55 W	1600.0	-7.2	6.4	-4.4	0.0	0.0	0.13
1700.0	0.43	N 66.47 W	1700.0	-7.7	6.8	-5.0	0.0	0.0	0.14
1800.0	0.47	N 51.38 W	1800.0	-8.3	7.2	-5.6	0.0	0.0	0.13
1900.0	0.40	N 73.64 W	1900.0	-8.8	7.6	-6.3	0.0	0.0	0.17
2000.0	0.47	N 35.41 W	2000.0	-9.3	8.0	-6.9	0.0	0.0	0.32
2100.0	0.52	N 61.08 W	2100.0	-10.0	8.6	-7.5	0.0	0.0	0.24
2200.0	0.43	N 62.72 W	2200.0	-10.5	9.0	-8.2	0.0	0.0	0.09
2300.0	0.35	N 49.73 W	2300.0	-11.0	9.3	-8.8	0.0	0.0	0.11
2400.0	0.45	N 54.04 W	2400.0	-11.5	9.8	-9.4	0.0	0.0	0.11
2500.0	0.24	N 55.88 W	2499.9	-12.0	10.1	-9.8	0.0	0.0	0.21
2600.0	0.42	N 81.57 W	2599.9	-12.3	10.3	-10.4	0.0	0.0	0.26
2700.0	0.50	S 78.23 W	2699.9	-12.4	10.2	-11.2	0.0	0.0	0.19
2800.0	0.50	S 64.10 W	2799.9	-12.3	10.0	-12.0	0.0	0.0	0.12
2900.0	0.63	S 66.97 W	2899.9	-12.1	9.6	-12.9	0.0	0.0	0.13

JUN-10-1993 18:53

FROM COBB D D F051 TRM

TO

1-713-871-7485

P.02

JUN-10-1993 16:54

COBB DIRECTIONAL DRILLING \ HORIZONTAL TECHNOLOGY

COLUMBIA GAS
KANE SPRINGS FEDERAL #25-19-34-1 \ GRAND CO\UTAH

MINIMUM CURVATURE CALCULATIONS

10-JUN-93 Page 2

MEASURED	INC.	DIR.	TVD	VERT.	N / S	E / W	LEASE LINE	CLOSURE	DLEG
DEPTH							FSL	FSL	SEV.
(Ft)	Deg	Deg	(Ft)	(Ft)	(Ft)	(Ft)	(Ft)	(Ft)	/100(Ft)
3000.0	0.80	S 60.42 W	2999.9	-11.8	9.0	-14.0	0.0	0.0	N 57 16 W 17 0.19
3100.0	0.85	S 51.97 W	3099.9	-11.3	8.2	-15.2	0.0	0.0	N 61 38 W 17 0.13
3200.0	1.00	S 54.25 W	3199.9	-10.6	7.2	-16.5	0.0	0.0	N 66 18 W 18 0.16
3300.0	1.16	S 61.11 W	3299.9	-10.0	6.2	-18.1	0.0	0.0	N 70 58 W 19 0.21
3400.0	1.42	S 55.23 W	3399.9	-9.2	5.0	-20.0	0.0	0.0	N 75 51 W 21 0.30
3500.0	1.55	S 56.85 W	3499.8	-8.2	3.6	-22.1	0.0	0.0	N 80 47 W 22 0.14
3600.0	1.69	S 56.93 W	3599.8	-7.2	2.0	-24.5	0.0	0.0	N 85 13 W 25 0.14
3700.0	2.30	S 51.67 W	3699.7	-5.8	0.0	-27.3	0.0	0.0	N 90 0 W 27 0.65
3800.0	2.59	S 53.83 W	3799.6	-4.0	-2.6	-30.7	0.0	0.0	S 85 12 W 31 0.31
3900.0	2.67	S 51.28 W	3899.5	-2.1	-5.4	-34.4	0.0	0.0	S 81 7 W 35 0.14
4000.0	2.17	S 47.77 W	3999.4	-0.1	-8.1	-37.6	0.0	0.0	S 77 50 W 38 0.52
4100.0	3.10	S 70.15 W	4099.3	1.2	-10.3	-41.5	0.0	0.0	S 76 5 W 43 1.53
4200.0	3.21	S 65.21 W	4199.2	2.1	-12.4	-46.6	0.0	0.0	S 75 7 W 48 0.30
4300.0	2.13	N 79.93 W	4299.1	2.0	-13.2	-51.0	0.0	0.0	S 75 27 W 53 1.69
4400.0	2.85	N 74.71 W	4399.0	0.2	-12.2	-55.2	0.0	0.0	S 77 29 W 57 0.77
4500.0	3.05	N 70.82 W	4498.9	-2.4	-10.7	-60.1	0.0	0.0	S 79 53 W 61 0.29
4600.0	3.15	N 61.01 W	4598.7	-5.6	-8.5	-65.0	0.0	0.0	S 82 32 W 66 0.55
4700.0	3.48	N 54.55 W	4698.5	-9.6	-5.4	-69.9	0.0	0.0	S 85 34 W 70 0.51
4800.0	3.63	N 50.04 W	4798.4	-14.4	-1.6	-74.8	0.0	0.0	S 88 45 W 75 0.32
4900.0	3.53	N 49.36 W	4898.2	-19.3	2.4	-79.6	0.0	0.0	N 88 16 W 80 0.11
5000.0	3.04	N 45.83 W	4998.0	-24.0	6.3	-83.8	0.0	0.0	N 85 44 W 84 0.52
5100.0	2.25	N 40.68 W	5097.9	-27.9	9.6	-87.0	0.0	0.0	N 83 42 W 88 0.82
5300.0	1.98	N 40.07 W	5297.7	-34.5	15.2	-91.8	0.0	0.0	N 80 35 W 93 0.14
5400.0	1.79	N 32.28 W	5397.7	-37.5	17.9	-93.7	0.0	0.0	N 79 12 W 95 0.31
5500.0	1.64	N 26.51 W	5497.6	-40.3	20.5	-95.2	0.0	0.0	N 77 52 W 97 0.22
5600.0	1.66	N 24.58 W	5597.6	-43.1	23.1	-96.4	0.0	0.0	N 76 33 W 99 0.06
5700.0	1.67	N 26.42 W	5697.6	-45.9	25.7	-97.7	0.0	0.0	N 75 16 W 101 0.05
5800.0	1.71	N 20.57 W	5797.5	-48.8	28.4	-98.9	0.0	0.0	N 73 59 W 103 0.18
5900.0	1.88	N 20.17 W	5897.5	-51.9	31.3	-99.9	0.0	0.0	N 72 36 W 105 0.17
6000.0	1.98	N 23.60 W	5997.4	-55.3	34.4	-101.2	0.0	0.0	N 71 12 W 107 0.16

FROM COBB D D POSI TRM TO 1-713-871-3485 P.03

COBB DIRECTIONAL DRILLING \ HORIZONTAL TECHNOLOGY

JUN-10-1993 16:55

FROM COBB D D POST TRK

TO

1-713-871-3485

P.04

COLUMBIA GAS
LANE SPRINGS FEDERAL #25-19-34-1 \ GRAND CO\UTAH

MINIMUM CURVATURE CALCULATIONS

10-JUN-93 Page 3

MEASURED DEPTH (Ft)	INC. Deg	DIR. Deg	TVD (Ft)	VERT. (Ft)	N / S (Ft)	E / W (Ft)	LEASE LINE		CLOSURE		DLEG SEV. /100(Ft)
							FSL (Ft)	FWL (Ft)	AZIMUTH Deg Min	DIST (Ft)	
6100.0	2.18	N 23.10 W	6097.3	-58.8	37.8	-102.6	0.0	0.0	N 69 48 W	109	0.20
6200.0	2.11	N 24.28 W	6197.3	-62.5	41.2	-104.1	0.0	0.0	N 68 25 W	112	0.08
6300.0	2.30	N 21.87 W	6297.2	-66.3	44.7	-105.6	0.0	0.0	N 67 3 W	115	0.21
6400.0	2.17	N 23.81 W	6397.1	-70.1	48.3	-107.2	0.0	0.0	N 65 43 W	118	0.15
6500.0	1.99	N 21.02 W	6497.1	-73.7	51.7	-108.5	0.0	0.0	N 64 32 W	120	0.20
6600.0	1.86	N 23.35 W	6597.0	-77.0	54.8	-109.8	0.0	0.0	N 63 29 W	123	0.15
6700.0	1.86	N 26.65 W	6697.0	-80.1	57.7	-111.2	0.0	0.0	N 62 33 W	125	0.11
6800.0	2.29	N 25.52 W	6796.9	-83.7	61.0	-112.8	0.0	0.0	N 61 35 W	128	0.43
6838.0	2.64	N 26.20 W	6834.9	-85.2	62.5	-113.5	0.0	0.0	N 61 10 W	130	0.92
6878.0	0.10	N 85.60 W	6874.8	-86.2	63.3	-113.9	0.0	0.0	N 60 57 W	130	6.36
6909.0	4.10	S 3.70 E	6905.8	-85.1	62.2	-113.9	0.0	0.0	N 61 22 W	130	26.05
6941.0	9.30	S 7.00 E	6937.6	-81.4	58.5	-113.5	0.0	0.0	N 62 44 W	128	16.34
6972.0	14.50	S 13.70 E	6967.9	-75.0	52.2	-112.3	0.0	0.0	N 65 3 W	124	17.63
7004.0	19.40	S 18.30 E	6998.5	-65.7	43.3	-109.6	0.0	0.0	N 68 28 W	118	16.04
7035.0	25.10	S 20.00 E	7027.2	-54.0	32.2	-105.8	0.0	0.0	N 73 4 W	111	18.53
7067.0	31.10	S 21.80 E	7055.4	-39.1	18.1	-100.4	0.0	0.0	N 79 45 W	102	18.97
7098.0	36.50	S 21.10 E	7081.2	-22.1	2.1	-94.1	0.0	0.0	N 88 44 W	94	17.47
7130.0	41.70	S 19.00 E	7106.0	-2.1	-16.9	-87.2	0.0	0.0	S 79 3 W	89	16.83
7162.0	46.60	S 17.70 E	7128.9	20.0	-38.0	-80.2	0.0	0.0	S 64 38 W	89	15.59
7196.0	51.80	S 16.20 E	7151.1	45.7	-62.6	-72.7	0.0	0.0	S 49 15 W	96	15.68
7228.0	54.00	S 15.80 E	7170.4	71.1	-87.2	-65.7	0.0	0.0	S 36 59 W	109	6.95
7260.0	55.20	S 15.80 E	7189.0	97.2	-112.3	-58.6	0.0	0.0	S 27 33 W	127	3.75
7290.0	56.00	S 15.60 E	7205.9	121.9	-136.1	-51.9	0.0	0.0	S 20 52 W	146	2.72
7322.0	57.00	S 16.00 E	7223.6	148.5	-161.8	-44.6	0.0	0.0	S 15 25 W	168	3.30
7353.0	58.00	S 16.00 E	7240.3	174.6	-186.9	-37.4	0.0	0.0	S 11 19 W	191	3.23
7385.0	59.60	S 16.50 E	7256.8	201.9	-213.2	-29.7	0.0	0.0	S 7 56 W	215	5.18
7417.0	61.60	S 17.60 E	7272.5	229.7	-239.8	-21.6	0.0	0.0	S 5 8 W	241	6.94
7449.0	63.50	S 18.30 E	7287.3	258.0	-266.8	-12.8	0.0	0.0	S 2 45 W	267	6.25
7480.0	65.10	S 18.10 E	7300.7	285.7	-293.4	-4.1	0.0	0.0	S 0 48 W	293	5.19
7512.0	66.50	S 18.80 E	7313.8	314.8	-321.1	5.2	0.0	0.0	S 0 55 E	321	4.81

COBB DIRECTIONAL DRILLING \ HORIZONTAL TECHNOLOGY

LUMBIA GAS
NE SPRINGS FEDERAL #25-19-34-1 \ GRAND CO\UTAH

MINIMUM CURVATURE CALCULATIONS

10-JUN-93 Page 4

MEASURED DEPTH (Ft)	INC. Deg	DIR. Deg		TVD (Ft)	VERT. (Ft)	N / S (Ft)	E / W (Ft)	LEASE LINE		CLOSURE		DLEG SEV. /100(Ft)
								FSL (Ft)	FWL (Ft)	AZIMUTH Deg Min	DIST (Ft)	
7541.0	67.80	S	18.80 E	7325.1	341.3	-346.4	13.8	0.0	0.0	S 2 17 E	347	4.48
7584.0	69.50	S	19.30 E	7340.8	381.1	-384.2	26.8	0.0	0.0	S 4 0 E	385	4.10
7616.0	75.80	S	18.60 E	7350.3	411.4	-413.1	36.8	0.0	0.0	S 5 5 E	415	19.80
7648.0	83.30	S	20.70 E	7356.1	442.6	-442.7	47.3	0.0	0.0	S 6 6 E	445	24.33
7678.0	86.30	S	20.90 E	7358.8	472.2	-470.6	57.9	0.0	0.0	S 7 1 E	474	10.02
7712.0	86.00	S	21.00 E	7361.1	505.7	-502.3	70.1	0.0	0.0	S 7 57 E	507	0.93
7744.0	84.80	S	20.20 E	7363.7	537.3	-532.2	81.3	0.0	0.0	S 8 41 E	538	4.50
7777.0	85.20	S	20.30 E	7366.5	569.8	-563.0	92.7	0.0	0.0	S 9 21 E	571	1.25
7809.0	86.30	S	20.30 E	7368.9	601.4	-592.9	103.7	0.0	0.0	S 9 55 E	602	3.44
7842.0	86.20	S	20.50 E	7371.1	634.0	-623.8	115.2	0.0	0.0	S 10 28 E	634	0.68
7874.0	87.20	S	20.70 E	7372.9	665.6	-653.7	126.5	0.0	0.0	S 10 57 E	666	3.19
7906.0	88.30	S	20.00 E	7374.2	697.3	-683.7	137.6	0.0	0.0	S 11 23 E	697	4.07
7938.0	87.60	S	20.30 E	7375.3	729.0	-713.7	148.6	0.0	0.0	S 11 46 E	729	2.38
7987.0	88.40	S	20.30 E	7377.0	777.5	-759.6	165.6	0.0	0.0	S 12 18 E	777	1.63



VIA AIRBORNE EXPRESS

June 11, 1993

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Division of Oil, Gas & Mining
Attn: Mr. R. J. Firth
355 W. N. Temple
3 Triad Center, Suite 350
Salt Lake City, Utah

**Reference: Columbia Gas Development Corporation
Kane Springs #25-19-34-1
Sec.34-T258-R19E
Grand County, Utah**

Gentlemen:

Please find enclosed the Completion Report for the above-referenced well. Also enclosed are copies of the logs, directional survey, well test, and geological report.

Columbia Gas Development Corporation respectfully requests that all information **be kept confidential for the maximum amount of time allowed.**

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

A handwritten signature in cursive script that reads "Wendy G. DesOrmeaux".

Wendy G. DesOrmeaux
Regulatory Coordinator

WGD
Attachments

RECEIVED

JUN 14 1993

DIVISION OF
OIL GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other <input type="checkbox"/>		2. NAME OF OPERATOR Columbia Gas Development Corporation		3. ADDRESS OF OPERATOR P. O. Box 1350, Houston, Texas 77251-1350	
4. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. REVR. <input type="checkbox"/> Other <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. U-53624		6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A	
7. NAME OF OPERATOR Columbia Gas Development Corporation		8. FARM OR LEASE NAME Kane Springs Federal		9. UNIT AGREEMENT NAME Kane Springs Federal Unit	
10. LOCATION OF WELL (Report location clearly and in accordance with any State requirements) At surface 934' FNL & 1678' FEL At top prod. interval reported below 1314' FNL & 1652' FEL At total depth 1694' FNL & 1513' FEL		11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec. 34-T25S-R19E		12. COUNTY OR PARISH Grand	
13. STATE Utah		14. PERMIT NO. 43-019-31334		15. DATE ISSUED 3/5/93	
16. DATE SPUDDED 3/19/93		17. DATE T.D. REACHED 5/1/93		18. DATE COMPL. (Ready to prod.) 5/21/93	
19. ELEVATIONS (DF, RKB, RT, OR, ETC.) 5821.2' Gr.		20. ELEV. CASINGHEAD		21. ELEV. CASINGHEAD	
22. TOTAL DEPTH, MD & TVD 7988 MD/7377 TVD		23. PLUG BACK T.D., MD & TVD 7988 MD/7377 TVD		24. IF MULTIPLE COMPL., HOW MANY*	
25. INTERVALS DRILLED BY ROTARY TOOLS X		26. CABLE TOOLS		27. WAS DIRECTIONAL SURVEY MADE Yes	
28. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* From: 7580 MD/7339 TVD To: 7988 MD/7377 TVD CNCR		29. TYPE ELECTRIC AND OTHER LOGS RUN DIL/GR/Sonic @ 6870 to 4389; MWD-GR 6870-TD; Direction Survey-Surf. to TD		30. WAS WELL CORRED No	
31. CASING RECORD (Report all strings set in well)					
Casing Size		Weight, lb./ft.		Depth Set (MD)	
20"		Conductor		60'	
13-3/8"		60#		664'	
9-5/8"		40#		4389'	
7"		29#		7580'	
32. LINER RECORD		33. TUBING RECORD		34. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
Size		Top (MD)		Bottom (MD)	
4-1/2"		7335'		7988'	
Sacks Cement*		Screen (MD)		Size	
Pkr @ 7080'		2-7/8"		7080'	
35. PERFORATION RECORD (Interval, size and number) One hole per every 3' @ 90° phase from 7985' to 7580'		36. DEPTH INTERVAL (MD) NA		37. AMOUNT AND KIND OF MATERIAL USED	
38. PRODUCTION DATE FIRST PRODUCTION N/A		39. PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing		40. WELL STATUS (Producing or shut-in) Shut-in (as of 5/24/93)	
41. DATE OF TEST 5/21/93		42. HOURS TESTED 24		43. CHOKER SIZE 30/64"	
44. PROD'N. FOR TEST PERIOD 731		45. OIL—BBL. 731		46. GAS—MCF. 328	
47. WATER—BBL. 0		48. GAS-OIL RATIO 448		49. FLOW. TUBING PRESS. 287	
50. CASING PRESSURE 840		51. CALCULATED 24-HOUR RATE 731		52. OIL GRAVITY-API (CORR.) 42°	
53. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Flared		54. TEST WITNESSED BY BLM notified		55. LIST OF ATTACHMENTS Logs, well test data, directional survey, geological report.	
56. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records		57. SIGNED Wendy L. DeLoe		58. TITLE Regulatory Coordinator	
59. DATE 6/11/93		60. CONFIDENTIAL		61. * (See Instructions and Spaces for Additional Data on Reverse Side)	

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Salt #18	6696	6696	Lost circulation zone in salt #18. Lost approx. 6700 bbls fluid to zone. Probable fracture or void.
Cane Creek interval of No Cores	7530 MD 7321 TVD	Well TD'd	Fractured, overpressured shale, siltstone and anhydrite containing oil and gas

38.

GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Chinle	666	666
Cutler	1398	1398
Paradox Salt	3977	3976
Cane Creek	7530	7321
TD:	7988	7377

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.

U-53624

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

Kane Springs Federal Unit

8. Well Name and No.

Kane Springs Fed. 25-19-34

9. API Well No.

43-019-31334

10. Field and Pool, or Exploratory Area

Bartlett Flat

11. County or Parish, State

Grand County, Utah

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Columbia Gas Development Corporation

3. Address and Telephone No.

P. O. Box 1350, Houston, Texas 77251 (713) 871-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934' FNL & 1678' FEL of Sec. 34-T25S-R19E

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent

☒ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☒ Other

Weekly Activity Report

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut-Off

☐ Conversion to Injection

☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

6/10/93 - 6/15/93 Waiting on production equipment, Evaporating pit.

RECEIVED

JUN 16 1993

DIVISION OF:
OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct.

Signed

Wendy T. DeCimeaux

Title

Regulatory Coordinator

Date

6/15/93

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statement or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.

U-53624

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

Kane Springs Federal Unit

8. Well Name and No.

KaneSprings Fed.25-19-34-

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43-019-31334

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6/21/93 - 6/28/93 - Installing production facilities.

RECEIVED

JUN 30 1993

DIVISION OF
OIL GAS & MINING

14. I hereby certify that the foregoing is true and correct

Signed

Wendy A. Deslauriers

Title

Regulatory Coordinator

Date

6/28/93

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6/28/93 - 7/5/93

Continued Construction of production facilities. 50% complete on 7/5/93.

14. I hereby certify that the foregoing is true and correct

Signed

Wendy L. DeCormaux

Title

Regulatory Coordinator

Date

7/6/93

(This space for Federal or State office use)

Approved by

Title

Date

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RECEIVED

JUL 12 1993

DIVISION OF
OIL GAS & MINING

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Signed

Wendy L. DeCrombez

Title

Regulatory Coordinator

Date

7/6/93

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*See instruction on Reverse Side



July 12, 1993

Bureau of Land Management
Attn: Eric Jones
82 E. Dogwood
Moab, UT 84532

State of Utah
Division of Oil, Gas & Mining
Attn: Mr. R. J. Firth
355 W. N. Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180

**Reference: Columbia Gas Development Corporation
Kane Springs Federal #20-1
Sec.20-T26S-R19E
Grand County, Utah**

Gentlemen:

Please find attached the Weekly Activity Report for the above-referenced well, along with the activity report for the Kane Springs Federal #25-19-34-1.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

A handwritten signature in cursive script, reading "Wendy G. DesOrmeaux", followed by a large "X" mark.

Wendy G. DesOrmeaux
Regulatory Coordinator

RECEIVED

JUL 12 1993

DIVISION OF
OIL GAS & MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

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The above-referenced well was put on production at approximately 9:45 AM CST on Monday, July 12, 1993.

RECEIVED

JUL 14 1993

**DIVISION OF
OIL GAS & MINING**

14. I hereby certify that the foregoing is true and correct

Signed

Wendy L. DeCremeaux

Title

Regulatory Coordinator

Date

7/12/93

(This space for Federal or State office use)

Approved by

Conditions of approval, if any:

Title

Date

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*See Instruction on Reverse Side

COMPANY : COLUMBIA GAS
 DATE : 14-MAR-1993
 SERIAL NO: EW0240

COMPUTATION PAGE NO. 3
 TIME DATE
 16:45:37 15-MAR-93

MEASURED DEPTH FEET	DRIFT ANGLE DEG	DRIFT DIRECTION DEG	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	R E C T A N G U L A R C O O R D I N A T E S FEET	DOGLE6 SEVERITY DG/100FT
0	.00	.00	.00	.00	.00	.00
100	.15	7.66	100.00	-.12	.13 N .02 E	.15
200	.18	357.04	200.00	-.39	.41 N .03 E	.05
300	.40	336.15	300.00	-.89	.89 N .12 W	.24
400	.46	333.24	400.00	-1.62	1.56 N .44 W	.06
500	.54	330.27	499.99	-2.47	2.33 N .85 W	.08
600	.50	335.93	599.99	-3.35	3.13 N 1.26 W	.06
700	.29	319.48	699.98	-4.01	3.71 N 1.60 W	.24
800	.30	320.22	799.98	-4.48	4.11 N 1.93 W	.02
900	.30	321.73	899.98	-4.96	4.51 N 2.26 W	.01
1000	.28	311.62	999.98	-5.41	4.88 N 2.61 W	.05
1100	.28	311.92	1099.98	-5.82	5.20 N 2.97 W	.01
1200	.25	302.53	1199.98	-6.19	5.48 N 3.33 W	.05
1300	.31	296.02	1299.98	-6.53	5.71 N 3.76 W	.07
1400	.23	291.78	1399.98	-6.83	5.91 N 4.18 W	.08
1500	.33	295.51	1499.97	-7.14	6.10 N 4.63 W	.11
1600	.40	311.45	1599.97	-7.63	6.46 N 5.15 W	.12
1700	.43	293.53	1699.97	-8.17	6.85 N 5.76 W	.13
1800	.47	308.62	1799.97	-8.74	7.25 N 6.43 W	.12
1900	.40	286.36	1899.96	-9.26	7.61 N 7.08 W	.18
2000	.47	324.59	1999.96	-9.83	8.04 N 7.65 W	.29
2100	.52	298.92	2099.96	-10.54	8.59 N 8.29 W	.23
2200	.43	297.28	2199.95	-11.12	8.98 N 9.02 W	.09
2300	.35	310.27	2299.95	-11.64	9.36 N 9.59 W	.12
2400	.45	305.96	2399.95	-12.20	9.78 N 10.14 W	.10
2500	.24	304.12	2499.95	-12.67	10.13 N 10.63 W	.20
2600	.42	278.43	2599.95	-12.98	10.30 N 11.17 W	.22
2700	.50	258.23	2699.94	-13.16	10.27 N 11.95 W	.18
2800	.50	244.10	2799.94	-13.12	9.99 N 12.78 W	.12
2900	.63	246.97	2899.93	-12.98	9.58 N 13.67 W	.13
3000	.80	240.42	2999.93	-12.75	9.02 N 14.79 W	.19
3100	.85	231.97	3099.92	-12.31	8.22 N 15.98 W	.13
3200	1.00	234.25	3199.90	-11.73	7.25 N 17.27 W	.16
3300	1.16	241.11	3299.88	-11.21	6.25 N 18.87 W	.20
3400	1.42	235.23	3399.86	-10.59	5.06 N 20.77 W	.29
3500	1.55	236.85	3499.83	-9.79	3.61 N 22.92 W	.14

COMPANY : COLUMBIA GAS
 DATE : 14-MAR-1993
 SERIAL NO: EW0240

COMPUTATION PAGE NO. 4
 TIME DATE
 16:45:37 15-MAR-93

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3600	1.69	236.93	3599.79	-8.96	2.07 N	25.29 W	.14
3700	2.30	231.67	3699.72	-7.76	.02 N	28.10 W	.64
3800	2.59	233.83	3799.63	-6.22	2.56 S	31.50 W	.30
3900	2.67	231.28	3899.53	-4.54	5.35 S	35.14 W	.14
1' corr. 4000	2.17	227.77	3999.44	-2.80	8.09 S	38.37 W	.52
4100	3.10	250.15	4099.33	-1.78	10.28 S	42.31 W	1.37
4200	3.21	245.21	4199.18	-1.17	12.37 S	47.39 W	.30
4300	2.13	280.07	4299.08	-1.56	13.22 S	51.77 W	1.90
4400	2.85	285.29	4398.98	-3.67	12.24 S	56.00 W	.75
4500	3.05	289.18	4498.85	-6.49	10.71 S	60.91 W	.28
4600	3.15	298.99	4598.71	-9.96	8.51 S	65.82 W	.54
4700	3.48	305.45	4698.54	-14.28	5.42 S	70.69 W	.50
2' corr. 4800	3.63	309.96	4798.35	-19.28	1.62 S	75.59 W	.31
4900	3.53	310.64	4898.15	-24.47	2.41 N	80.35 W	.11
5000	3.04	314.17	4997.99	-29.34	6.27 N	84.59 W	.53
5100	2.79	322.68	5097.86	-33.91	10.05 N	87.97 W	.50
5200	2.25	319.32	5197.76	-37.96	13.47 N	90.72 W	.56
5300	1.98	319.93	5297.69	-41.31	16.28 N	93.11 W	.27
5400	1.79	327.72	5397.64	-44.38	18.92 N	95.05 W	.32
5500	1.64	333.49	5497.59	-47.28	21.51 N	96.52 W	.23
5600	1.66	335.42	5597.55	-50.12	24.11 N	97.76 W	.06
5700	1.67	333.58	5697.51	-52.98	26.73 N	99.01 W	.05
3' corr. 5800	1.71	339.43	5797.47	-55.90	29.43 N	100.18 W	.18
5900	1.88	339.83	5897.42	-59.02	32.36 N	101.27 W	.18
6000	1.98	336.40	5997.36	-62.37	35.48 N	102.53 W	.15
6100	2.18	336.90	6097.30	-65.97	38.82 N	103.97 W	.20
6200	2.11	335.72	6197.23	-69.68	42.25 N	105.47 W	.09
6300	2.30	338.13	6297.15	-73.50	45.78 N	106.98 W	.22
6400	2.17	336.19	6397.07	-77.37	49.38 N	108.49 W	.15
6500	1.99	338.98	6497.01	-80.97	52.73 N	109.87 W	.21
6600	1.86	336.65	6596.95	-84.31	55.84 N	111.14 W	.14
6700	1.86	333.35	6696.90	-87.52	58.78 N	112.51 W	.11
6800	2.29	334.48	6796.83	-91.08	62.03 N	114.10 W	.43
6838	2.64	333.80	6834.80	-92.69	63.50 N	114.81 W	.94

FINAL CLOSURE - DIRECTION: 298.95
 DISTANCE: 131.20 FEET
 FILE NUMBER: 011

COBB DIRECTIONAL DRILLING

Report of Survey

Radius of Curvature Method

MEASURED DEPTH	INCL.	DIRECTION	VERTICAL DEPTH	VERTICAL SECTION	R E C T A N G U L A R C O O R D I N A T E S		DLS Deg/100'
6838.00	2.64	333.80	6834.80	-92.69	63.50 N	114.81 W	
DATA @ 6838 TAKEN FROM BAKER HUGHES SEEKER GYRO SURVEY							
6878.00	.10	274.40	6874.78	-93.39	64.01 N	115.57 W	6.48
KICK OFF POINT @ 6870'							
6909.00	4.10	176.30	6905.76	-92.91	63.31 N	116.28 W	13.27
6941.00	9.30	173.00	6937.53	-89.24	59.59 N	115.93 W	16.29
6972.00	14.50	166.30	6967.85	-82.88	53.31 N	114.78 W	17.33
SLIDE 99' FROM 6870' TO 6969' WITH 2 1/4' X 1' MOTOR (HS)							
7004.00	19.40	161.70	6998.45	-73.56	44.35 N	112.21 W	15.86
7035.00	25.10	160.00	7027.13	-61.84	33.26 N	108.37 W	18.50
7067.00	31.10	158.20	7055.35	-46.83	19.19 N	102.99 W	18.93
7098.00	36.50	158.90	7081.10	-29.67	3.15 N	96.69 W	17.46
7130.00	41.70	161.00	7105.92	-9.55	15.81 S	89.77 W	16.77
7162.00	46.60	162.30	7128.88	12.71	36.95 S	82.76 W	15.57
7196.00	51.80	163.80	7151.08	38.44	61.56 S	75.26 W	15.65
SLIDE 234' FM 6969' TO 7203' W/ 2 1/4 MTR (TF HS)							
7228.00	54.00	164.20	7170.39	63.96	86.10 S	68.22 W	6.95
SLIDE 25' FROM 7203 TO 7228 WITH 1' MOTOR (TF HS)							
7260.00	55.20	164.20	7188.92	90.04	111.20 S	61.12 W	3.75
7290.00	56.00	164.40	7205.87	114.79	135.03 S	54.42 W	2.72
7322.00	57.00	164.00	7223.53	141.48	160.70 S	47.16 W	3.29
7353.00	58.00	164.00	7240.19	167.62	185.83 S	39.95 W	3.22
7385.00	59.60	163.50	7256.76	194.99	212.11 S	32.29 W	5.17
7417.00	61.60	162.40	7272.47	222.86	238.76 S	24.12 W	6.93
SLIDE 63' FROM 7363 TO 7458 WITH 1' MOTOR (TF 10L- 20L)							
7449.00	63.50	161.70	7287.22	251.24	265.78 S	15.36 W	6.25
7480.00	65.10	161.90	7300.67	279.16	292.31 S	6.64 W	5.19
SLIDE 17' FM 7472 -7489' W/ 1' MTR (TF 0-10R)							
7512.00	66.50	161.20	7313.78	308.32	320.00 S	2.60 E	4.81
SLIDE 16' FM 7505'-7521'(10R) & SLIDE 22' FM 7530'-7552'(10R)							
7541.00	67.80	161.20	7325.04	335.01	345.30 S	11.21 E	4.48
7584.00	69.50	160.70	7340.70	375.00	383.15 S	24.28 E	4.10
SLIDE 78' W/ 2X1 MTR FM 7585-7663 (TF HS)							
7616.00	75.80	161.40	7350.24	405.49	412.02 S	34.19 E	19.80

[C.C. Intercept : MD = 7530

335.70 S

7.94 E]

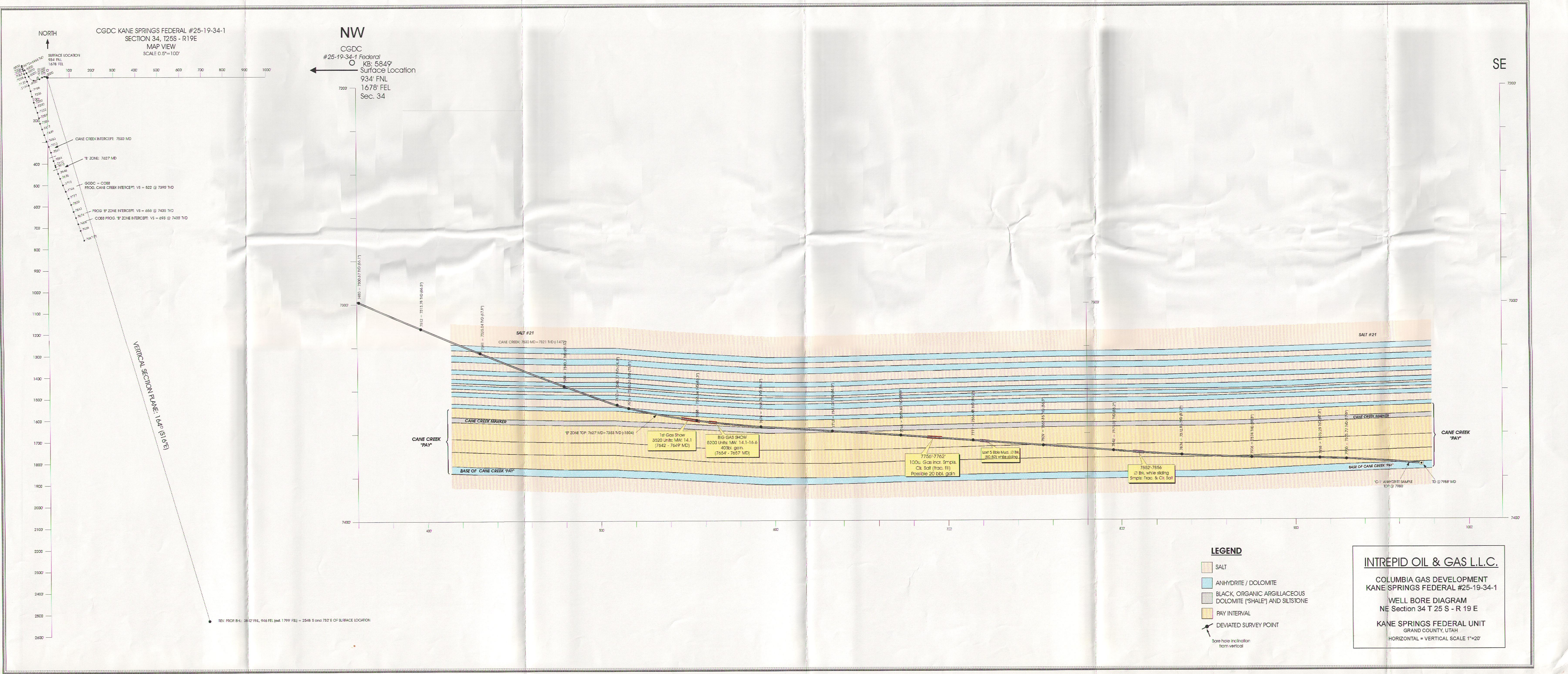
COLUMBIA GAS
GRAND COUNTY, UTAH
KANE SPRINGS FED. #25-19-34-1

Page 2

MEASURED DEPTH	INCL.	DIRECTION	VERTICAL DEPTH	VERTICAL SECTION	RECTANGULAR COORDINATES	DLS Deg/100'
7648.00	83.30	159.30	7356.04	436.87	441.64 S	44.77 E 24.31
7678.00	86.30	159.10	7358.76	466.64	469.56 S	55.38 E 10.02
SLIDE 20' W/ 1' MTR 7663-7683 (TF +/- 45)						
7712.00	86.00	159.00	7361.04	500.43	501.24 S	67.51 E .93
SLIDE 11' W/ 1' MTR 7718-7729 (TF 150R) SLIDE 11' 7737-7748 (TF 160R)						
7744.00	84.80	159.80	7363.60	532.23	531.10 S	78.73 E 4.50
SLIDE 46' W/ 1' MTR 7763-7809 (TF 20R)						
7777.00	85.20	159.70	7366.48	565.01	561.94 S	90.11 E 1.25
7809.00	86.30	159.70	7368.85	596.83	591.87 S	101.18 E 3.44
7842.00	86.20	159.50	7371.01	629.66	622.74 S	112.66 E .68
SLIDE 64' W/ 1' MTR 7844-7908 (TF 0-10R)						
7874.00	87.20	159.30	7372.85	661.51	652.64 S	123.90 E 3.19
7906.00	88.30	160.00	7374.11	693.39	682.62 S	135.02 E 4.07
7938.00	87.60	159.70	7375.25	725.28	712.64 S	146.03 E 2.38
FOLLOWING SURVEY @ TD IS PROJECTED						
7987.00	88.40	159.70	7376.96	774.12	758.57 S	163.02 E 1.63

Final location: 775.89 feet at 167.87 degrees
Plane of Vertical Section: 164.00 degrees

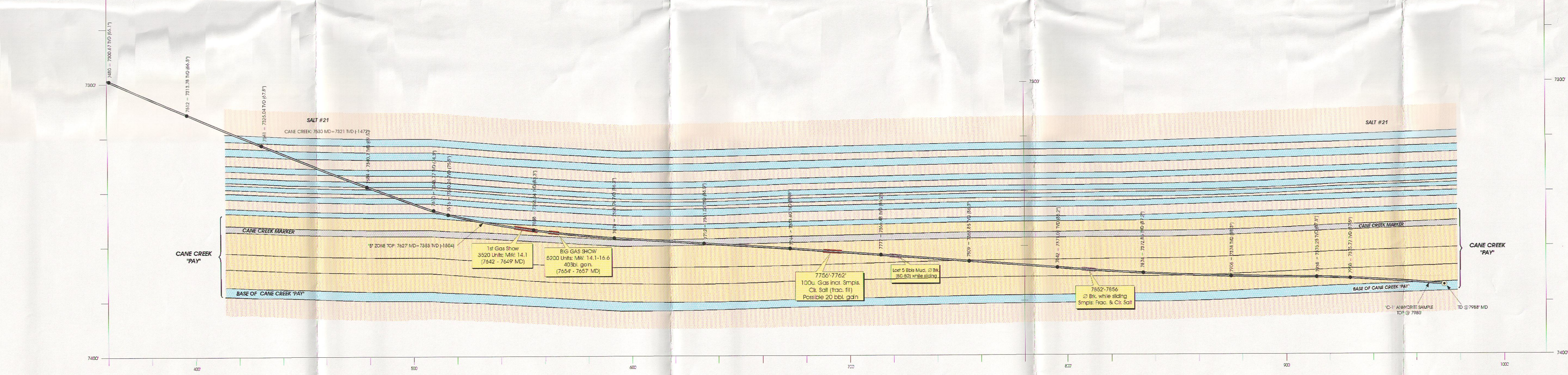
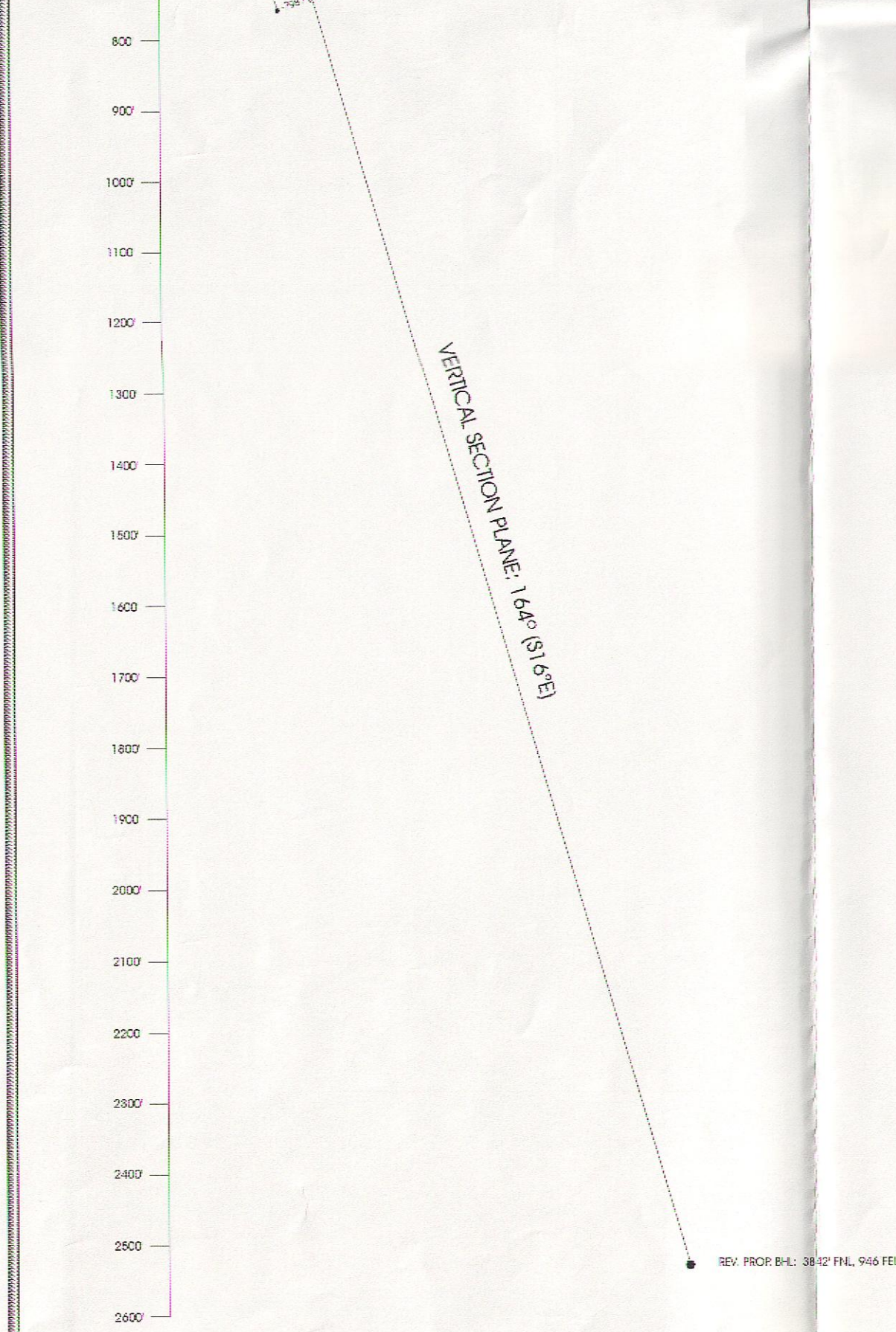
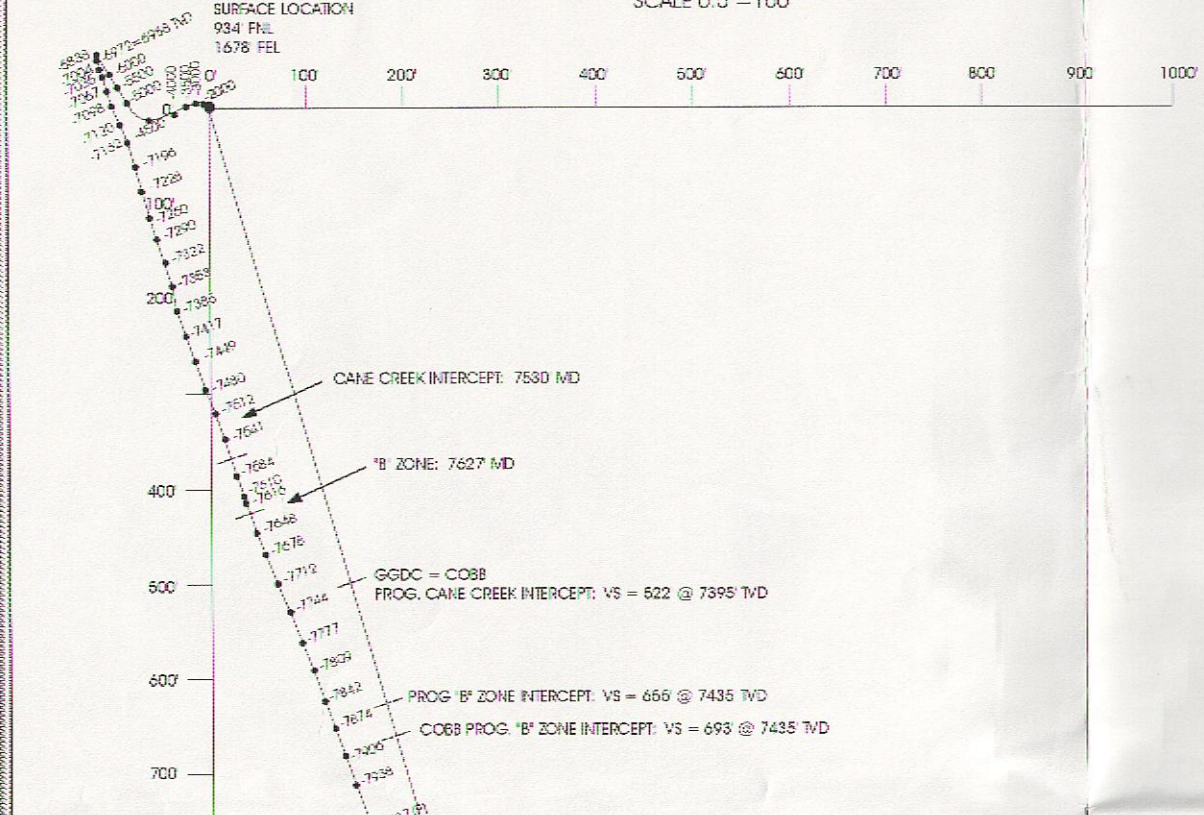
B41C proj: 1693 FNL, 1515 FEL



NORTH
CGDC KANE SPRINGS FEDERAL #25-19-34-1
SECTION 34, T26S - R19E
MAP VIEW
SCALE 0.5"=100'

NW
CGDC
#25-19-34-1 Federal
KB: 5849
Surface Location
934' FNL
1678' FEL
Sec. 34

SE



- LEGEND**
- SALT
 - ANHIDRITE / DOLOMITE
 - BLACK, ORGANIC ARGILLACEOUS DOLOMITE ("SHALE") AND SILTSTONE
 - PAY INTERVAL
 - DEVIATED SURVEY POINT
 - Bore hole inclination from vertical

INTREPID OIL & GAS L.L.C.
COLUMBIA GAS DEVELOPMENT
KANE SPRINGS FEDERAL #25-19-34-1
WELL BORE DIAGRAM
NE Section 34 T 25 S - R 19 E
KANE SPRINGS FEDERAL UNIT
GRAND COUNTY, UTAH
HORIZONTAL = VERTICAL SCALE 1"=20'

ENTITY ACTION FORM - FORM 6

ADDRESS _____

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
A	11180	11521	43-019-31334	KANE SPRINGS FED 25-19-34-1	NWNE	34	25S	19E	GRAND	3-19-93	5-21-93
WELL 1 COMMENTS: *SURF LOC WITHIN KANE SPRINGS U/CNCR "A" P.A., HOWEVER BHL IS NOT. ENTITY IS BEING CHANGED AT THIS TIME UNTIL FURTHER NOTICE FROM BLM OF P.A. REVISION/EXPANSION. (APPROVED BY ADMIN.)											
WELL 2 COMMENTS:											
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

ACTION CODES (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

L. CORDOVA (DOGM)

Signature

ADMIN. ANALYST

9-16-93

Title

Date

Phone No. ()

COLUMBIA GAS

Development



RECEIVED

Oct 27 1993

**DIVISION OF
OIL, GAS & MINING**

October 25, 1993

State of Utah
Division of Oil, Gas & Mining
Attn: Mr. R. J. Firth
355 W. N. Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180

**Reference: Columbia Gas Development Corporation
Kane Springs Federal #20-1
Sec.20-T268-R19E
Kane Springs Federal #25-19-34-1
Sec. 34-T258-R19E
Grand County, Utah**

Dear Mr. Firth:

Please find attached Sundry Notices reporting pit closure activities on the above-referenced wells.

Should you have any questions or require additional information, please contact me at 713/871-3400.

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

A handwritten signature in cursive script that reads "Wendy G. DesOrmeaux".

Wendy G. DesOrmeaux
Regulatory Coordinator

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.

U-53624

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

Kane Springs Federal

8. Well Name and No. 25-19-

Kane Springs Fed. 34-1

9. API Well No.

43-019-31334

10. Field and Pool, or Exploratory Area

Bartlett Flat

11. County or Parish, State

Grand County, Utah

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Columbia Gas Development Corporation

3. Address and Telephone No.

P. O. Box 1350, Houston, TX 77251-1350 (713) 871-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934' FNL & 1678' FEL, Sec.34-T25S-R19E

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Pit Closure
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

SEE ATTACHED FOR PIT CLOSURE REPORT.

RECEIVED

SEP 27 1993

**DIVISION OF
OIL, GAS & MINING**

14. I hereby certify that the foregoing is true and correct

Signed

Wendy A. Desormeaux

Title

Regulatory Coordinator

Date

10/25/93

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

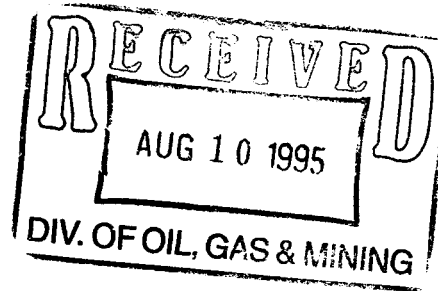
COLUMBIA GAS
Development



August 7, 1995

VIA AIRBORNE EXPRESS

Bureau of Land Management
82 E. Dogwood
Moab, Utah 84532



Attention: Eric Jones

Reference: NTL-4A Flaring Extension
Columbia Gas Development Corporation
Kane Springs Federal Unit
Wells No. 25-19-34-1, 27-1, 19-1A ST, 16-1 and
10-1 *42-019-31334*
Grand County, Utah *Sec 29, T25S, R 19E*

Dear Mr. Jones:

Columbia Gas Development Corporation (CGDC) respectfully requests an additional one year extension under NTL-4A to flare or vent associated gas produced from the above-referenced wells.

Currently, the five wells on federal land within the Unit are producing a total of approximately 293 BOPD and 202 MCF of gas per day. A graph displaying the cumulative production curves through July 1, 1995, for the five wells is attached. We anticipate that the production from the wells will continue to decline. CGDC will continue to periodically perform well work which will result in temporary increases in the oil and gas production rates, as evidenced by the graph.

During the period of the one year extension, CGDC does not anticipate drilling any additional wells or attempting any redrilling or recompletion of the non-producing wells within the Unit.

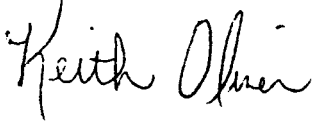
Since it is the goal of the BLM, the Utah Board of Oil, Gas, and Mining, and CGDC to have both the BLM's and State of Utah's flaring authorizations be concurrent and essentially identical, we request that you communicate your decision to Mr. R. J. Firth of the Utah Division of Oil, Gas and Mining prior to September 1, 1995, so that the staff may advise the Board of your decision at their September meeting.

Should you have any questions, or require additional information, please contact either myself, at 713/871-3338, Wendy DesOrmeaux at 713/871-3482.

Columbia Gas Development Corporation, One Riverway, P.O. Box 1350
Houston, Texas 77251-1350, Tel. (713) 871-3400

Very truly yours,

COLUMBIA GAS DEVELOPMENT CORPORATION

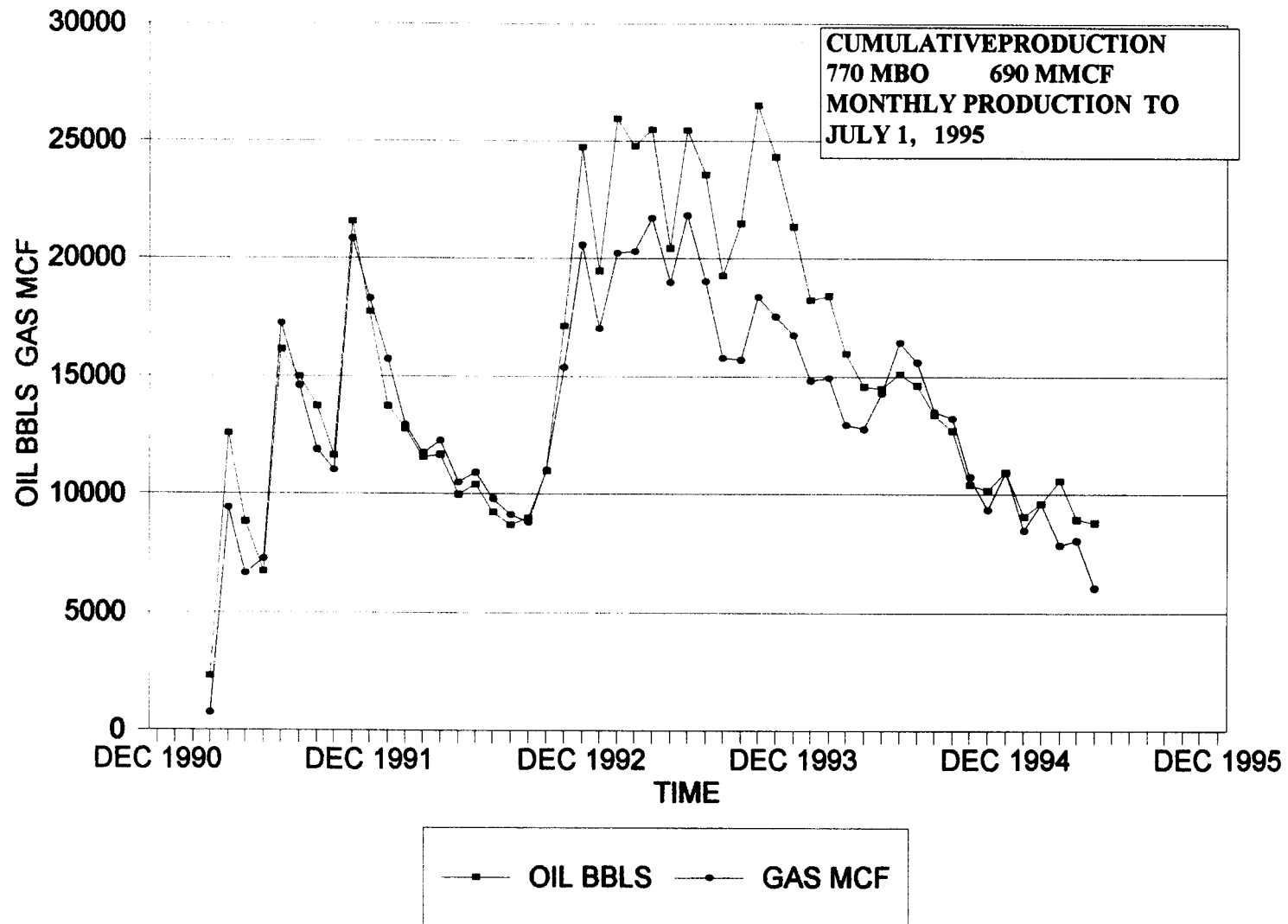
A handwritten signature in cursive script, reading "Keith Oliver".

Keith Oliver
Regulatory Clerk

KTO
Attachments

cc: R. J. Firth; Division of Oil, Gas & Mining
Bob Pruitt; Pruitt, Gushee & Bachtell

KANE SPRINGS TOTAL PRODUCTION GRAND COUNTY, UTAH



STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801

Page 2 of 2

MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

SONJA ROLFES
 COLUMBIA GAS DEVELOPMENT
 PO BOX 1350
 HOUSTON TX 77251

UTAH ACCOUNT NUMBER: N5035

REPORT PERIOD (MONTH/YEAR): 6 / 96

AMENDED REPORT ☐ (Highlight Changes)

Well Name			Producing Zone	Well Status	Days Oper	Production Volumes		
API Number	Entity	Location				OIL(BBL)	GAS(MCF)	WATER(BBL)
✓ KANE SPRINGS 16-1								
4301931341	11484	25S 18E 16	CNCR			ML44333	(bond OK)	Kane Springs 16/16
✓ KANE SPRINGS FED 25-19-34-1								
4301931334	11521	25S 19E 34	CNCR			U53624		"
KANE SPRINGS FEDERAL 20-1								
4301931332	11670	26S 19E 20	CNCR			UTU54037	2000	"
TOTALS								

COMMENTS: _____

I hereby certify that this report is true and complete to the best of my knowledge.

Date: _____

Name and Signature: _____

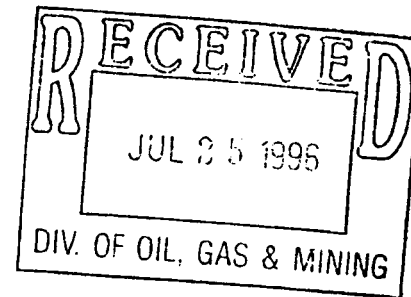
Telephone Number: _____



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155



IN REPLY REFER TO
3100
U-968 et al
(UT-932)

JUL 23 1996

NOTICE

Aviara Energy Corporation
P.O. Box 1350
Houston, Texas 77251-1350

:
:
:

Oil and Gas
U-968 et al

Name Change Recognized

Acceptable evidence has been received in this office concerning the change of name of Columbia Gas Development Corporation to Aviara Energy Corporation on Federal oil and gas leases.

For our purposes, the name change is recognized effective May 1, 1996 (Secretary of State's approval date).

The oil and gas lease files identified on the enclosed exhibit have been noted as to the name change. We are notifying the Minerals Management Service and all applicable Bureau of Land Management offices of the name change by a copy of this notice. If additional documentation for changes of operator is required by our Field Offices, you will be contacted by them.

Due to the name change, the name of the principal on the bond is required to be changed from Columbia Gas Development Corporation to Aviara Energy Corporation on Bond No. U-391050-16RR (BLM No. CO0356). A rider effecting this change has been submitted to the Colorado State Office of the BLM, which holds this nationwide bond.

ROBERT LOPEZ

Group Leader,
Minerals Adjudication Group

Enclosure

Exhibit (1 p.)

bc: Lisha Cordova, State of Utah, Division of Oil, Gas and Mining, P.O. Box 145801, Salt Lake City, Utah 84114-5801
MMS-Data Management Division, MS 3113, P.O. Box 5860, Denver, CO 80217
Moab District Office
Vernal District Office
Teresa Thompson (UT-931)
Irene Anderson (UT-932)

Exhibit of Leases

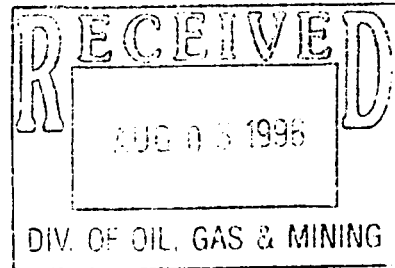
U-968	U-52277	UTU-65329
U-6911	U-52641	UTU-65795
U-15051	U-53624	UTU-65971
U-26467	U-53626	UTU-65972
U-28212	U-54037	UTU-65973
U-31736	U-55510	UTU-66020
U-34023	U-58517	UTU-66025
U-37116	U-60530	UTU-66849
U-46693	U-61182	UTU-67132
U-46697	U-61588	UTU-67552
U-47858	U-62181	UTU-67558
U-49964	U-62679	UTU-67854
U-50393	U-62832	UTU-68116
U-50678	U-62833	UTU-68117
U-50683	U-62906	UTU-68118
U-50687	U-63127	UTU-68122
U-51239	U-63128	UTU-68232
U-51636	UTU-64538	UTU-68342
U-51826	UTU-64927	UTU-69029
U-60780 (CA)	U-60783 (CA)	UTU-73405
UTU-67755X (Kane Springs Unit)		

Aviara Energy Corporation

VIA AIRBORNE EXPRESS

2 August 1996

State of Utah - Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114



Re: Notification of Name Change from "Columbia Gas Development Corporation" to "Aviara Energy Corporation".

Dear Sirs;

Attached please find documents relating to our company name change from "Columbia Gas Development Corporation" to "Aviara Energy Corporation". I have attached our surety bond rider showing the name change of the principal as well as documents relating to the Corporate name change. These Corporate name change documents contain a Certificate of Corporate Resolution, a Certificate of Amendment of Certificate of Incorporation by the Secretary of State of the State of Delaware evidencing a change of name effective April 30, 1996 from "Columbia Gas Development Corporation" to "Aviara Energy Corporation" and an amended Certificate of Incumbency in accordance with the regulations concerning qualifications of corporations holding Federal leases. I have also attached a list of wells and their locations that will be affected by the name change.

We hereby formally request your acceptance of this rider, and thus, our name change. Please sign the rider and return the appropriate copies to Aviara Energy Corporation (attn: Mr. Dean Roy). Also, please have your office make the necessary changes in your records to reflect this name change at this time.

Should you have questions or require additional information, please feel free to call me at (713) 871-3631. Thank you.

Respectfully,


Donny W. Worthington
Manager, Environmental, Safety & Regulatory

DWW/
attachments:

UTAH

GRAND COUNTY

KANE SPRINGS FIELD

LOCATION

Kane Springs Federal #10-1	10-25S-18E
Kane Springs Federal Unit #16-1	16-25S-18E
Kane Springs Federal #19-1A	19-26S-20E
Kane Springs Federal #27-1	27-25S-19E
Kane Springs Federal #34-1	34-25S-19E
<i>Kane Springs Fed. 28-1</i>	<i>28-25S-19E</i>
<i>Kane Springs Fed. 20-1</i>	<i>20-26S-19E</i>

SAN JUAN COUNTY

LISBON FIELD

Government Evelyn Chambers #1 (T&Ad)
Government Evelyn Chambers #2 (T&Ad)

UINTAH COUNTY

HORSESHOE BEND FIELD

WELL

LOCATION

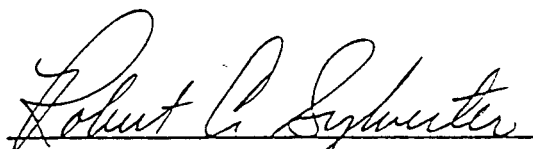
Alta 5-1-B	5-7S-21E
Alta 5-2-C	5-7S-21E
Cowden 31-3-C	31-6S-21E
Federal 33-3-J	33-6S-21E
Federal 33-6-F	33-6S-21E
Federal 33-7-L	33-6S-21E
Federal 33-8-N	33-6S-21E

CERTIFICATE

I, Robert C. Sylvester, Assistant Secretary of Aviara Energy Corporation, a corporation organized and existing under the laws of the State of Delaware, do hereby certify that the attached document titled Certificate of Amendment of Certificate of Incorporation is a true and correct copy of the Certificate of Amendment of Certificate of Incorporation filed in the Secretary of State of the State of Delaware's office on April 30, 1996.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of said Corporation this

5th day of July, 1996.

A handwritten signature in cursive script, reading "Robert C. Sylvester", written over a horizontal line.

Robert C. Sylvester
Assistant Secretary

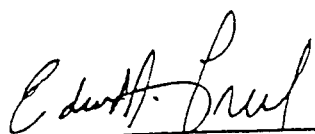
CORPORATE SEAL

State of Delaware
Office of the Secretary of State

PAGE 1

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "COLUMBIA GAS DEVELOPMENT CORPORATION", CHANGING ITS NAME FROM "COLUMBIA GAS DEVELOPMENT CORPORATION" TO "AVIARA ENERGY CORPORATION", FILED IN THIS OFFICE ON THE THIRTIETH DAY OF APRIL, A.D. 1996, AT 1:15 O'CLOCK P.M.





Edward J. Freel, Secretary of State

AUTHENTICATION:

DATE:

7928485

05-01-96

0735923 8100

000125695

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 01:15 PM 04/30/1996
960124621 - 735923

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION
OF
COLUMBIA GAS DEVELOPMENT CORPORATION

Columbia Gas Development Corporation (the "Corporation"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware,

DOES HEREBY CERTIFY:

FIRST: That the Certificate of Incorporation of Columbia Gas Development Corporation is amended by amending Article First thereof to read in its entirety as follows:

"FIRST: The name of the corporation (hereinafter called "the Corporation") is Aviana Energy Corporation."

SECOND: That said amendment was duly adopted in accordance with the provisions of §242 of the General Corporation Law of the State of Delaware and has been consented to in writing by the sole stockholder in accordance with §228 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, said Columbia Gas Development Corporation has caused this Certificate to be signed by Larry J. Bainter, its ~~Secretary~~ this 29th day of April 1996.

Vice President
[Signature]

COLUMBIA GAS DEVELOPMENT CORPORATION

By: *[Signature]*
Name: Larry J. Bainter
~~Secretary~~

CERTIFICATE

The undersigned hereby certifies that he is Assistant Secretary of Aviara Energy Corporation, a Delaware corporation (the "Corporation"), that on the 19th day of June, 1996 by Unanimous Consent of the Board of Directors of the Corporation in Lieu of Special Meeting, pursuant to Section 141(f) of the Delaware Corporation Law, the following resolutions were adopted, with the same force and effect as though adopted at a Special Meeting of the Board of Directors of the Corporation duly called and held, that such resolutions are now in full force and effect, and that said resolutions have not been amended or rescinded:

RESOLVED, that, the Chairman and Chief Executive Officer, the President and Chief Operating Officer, the Vice Presidents and the Secretary of the Corporation, be and each of them is hereby authorized and empowered, without the joinder of any other officer of the Corporation, to execute for and on behalf of the Corporation, any and all bids for leases from the United States of America, through the Minerals Management Service (Department of Interior), of any tract or tracts owned by the United States of America, located in either onshore or offshore areas, including tracts in the Outer Continental Shelf, as may at any time, and from time to time, heretofore have been offered or hereafter may be offered for lease by the United States of America, all on such terms and conditions as may be specified in any such offer to lease and on such terms and conditions and for such consideration as the aforementioned officers of the corporation, or any one of them, may deem proper and advisable; and to further execute on behalf of the Corporation all agreements and other instruments (including, without limitation, applications, bids, leases, bonds, assignments, relinquishments, prospecting permits, division and transfer orders, guarantees, indemnities, designations of operator, unitization agreements, operating agreements, liquids commingling agreements, general correspondence and any other documents) which may be necessary, useful or expedient at any time in carrying on the business of the Corporation involving any such lease or asset with the United States of America or any agency, bureau or department thereof; and

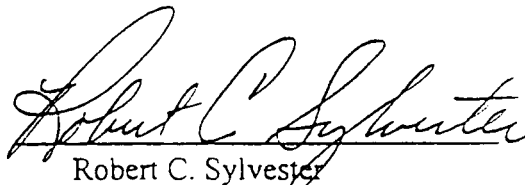
RESOLVED, that, any of such officers is further authorized and empowered to sell, assign, transfer, convey and deliver, in the name and on behalf of the Corporation any or all right, title and interest of any character in any lease or asset now owned or hereafter acquired by the Corporation covering any tract or tracts owned by the United States of America, or obtained or used in connection therewith, wherever located, for such prices and upon such terms and conditions as shall be approved by the Board of Directors; and

RESOLVED, that, the Chairman and Chief Executive Officer, the President and Chief Operating Officer, the Vice Presidents and the Secretary of the Corporation, be, and each of them is, hereby authorized and empowered, without the joinder of any other officer of the Corporation, to execute for and on behalf of the Corporation, any and all agreements and other instruments (including without limitation assignments of mining leases, prospecting permits, letter agreements,

consent forms, applications and approval letters) with the Tribe(s) of the Fort Peck Reservation and the Three Affiliated Tribes of the Fort Berthold Indian Reservation or any agency, bureau or department thereof. or any agency, bureau or department of the United States of America concerning same on such terms and conditions as may be specified and for such consideration as he may deem proper and advisable which may be necessary, useful or expedient at any time in carrying on the business of the Corporation upon the aforementioned Reservations; and

RESOLVED, that, the foregoing resolutions be deemed, and are effective, for all purposes as of April 30, 1996.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of the Corporation this 5th day of July, 1996.


Robert C. Sylvester
Assistant Secretary

CORPORATE SEAL

STATE OF TEXAS §
 §
COUNTY OF HARRIS §

STATEMENT OF AVIARA ENERGY CORPORATION

The undersigned, Robert C. Sylvester, Assistant Secretary of Aviara Energy Corporation, being first duly sworn on his oath, states that the following is correct to the best of his knowledge.

1. State of Incorporation. Aviara Energy Corporation is incorporated in the State of Delaware.
2. Authorization to hold oil and gas leases on OCS and other federal lands. Aviara Energy Corporation is authorized to hold oil and gas leases on the Outer Continental Shelf, on other federal lands, including onshore lands, and on tribal lands administered by the Bureau of Indian Affairs or other agency.

Dated this 5th day of July, 1996.

AVIARA ENERGY CORPORATION

By Robert C. Sylvester
Robert C. Sylvester
Assistant Secretary

CORPORATE SEAL

SUBSCRIBED AND SWORN TO before me this 5th day of July, 1996.

Carolyn Oliver
Notary Public, State of Texas



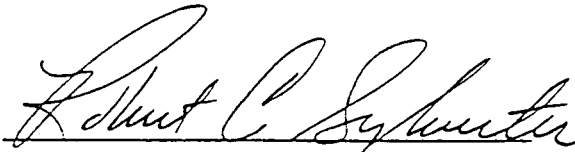
CAROLYN OLIVER
NOTARY PUBLIC, STATE OF TEX.
MY COMMISSION EXPIRES
JULY 19, 1997

CERTIFICATE OF INCUMBENCY

I, Robert C. Sylvester, Assistant Secretary of Aviara Energy Corporation, a Delaware corporation (the "Company"), do hereby certify that the following named persons now are, and at all times on and subsequent to April 30, 1996, have been duly elected or appointed, qualified and acting officers of the Company holding the offices set after their respective names as follows:

Tracy W. Krohn	Chairman and Chief Executive Officer
James L. Parker	President and Chief Operating Officer
David M. McCubbin	Vice President
Gary J. Mabie	Vice President
Ken Fagan	Vice President
Robert C. Sylvester	Treasurer and Assistant Secretary
Ivan Irwin, Jr.	Secretary
Jere F. Freel	Assistant Secretary

IN WITNESS WHEREOF, I have executed this Certificate and affixed the seal of the Company this 3rd day of July, 1996.


Robert C. Sylvester, Assistant Secretary

CORPORATE SEAL

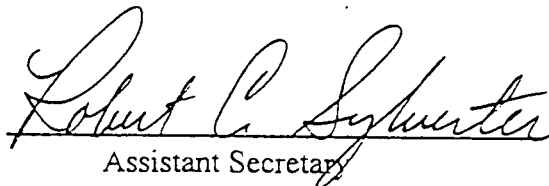
CERTIFICATE

I, Robert C. Sylvester, on behalf of Aviara Energy Corporation, (hereinafter called the "Company"), hereby certify that I am an Assistant Secretary of the Company and that:

The following officers and employees are authorized to execute leases, bids for leases, offers to lease, subleases, permits, licenses, applications therefor, assignments thereof, and requests for approval thereof, and other similar documents and to act on behalf of the Company in such matters.

<u>Name</u>	<u>Office/Title</u>
Tracy W. Krohn	Chairman and Chief Executive Officer
James L. Parker	President and Chief Operating Officer
Gary J. Mabie	Vice President
David M. McCubbin	Vice President
Ken Fagan	Vice President
Ivan Irwin, Jr.	Secretary

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of the Company
this 5th day of July, 1996.


Assistant Secretary

CORPORATE SEAL

OPERATOR CHANGE WORKSHEET

Routing

1-LEC	6-LTE
2-GH/FE	7-KDR
3-DTS	8-SJ
4-VLD	9-FILE
5-RJF	

Attach all documentation received by the division regarding this change.

Initial each listed item when completed. Write N/A if item is not applicable.

☒ Change of Operator (~~well sold~~)☐ Designation of Agent☐ Designation of Operator☒ Operator Name ~~Change Only~~The operator of the well(s) listed below has changed, effective: 5-1-96TO: (new operator) AVIARA ENERGY CORPORATION(address) PO BOX 1350HOUSTON TX 77251Phone: (713)871-3400Account no. N5500 (8-6-96)FROM: (old operator) COLUMBIA GAS DEVELOPMENT(address) PO BOX 1350HOUSTON TX 77251Phone: (713)871-3400Account no. N5035

WELL(S) attach additional page if needed:

***KANE SPRINGS UNIT
C.A. UTU60783**Name: ****SEE ATTACHED****API: 43-019-31334

Entity: _____ S _____ T _____ R _____ Lease: _____

Name: _____

API: _____

Entity: _____ S _____ T _____ R _____ Lease: _____

Name: _____

API: _____

Entity: _____ S _____ T _____ R _____ Lease: _____

Name: _____

API: _____

Entity: _____ S _____ T _____ R _____ Lease: _____

Name: _____

API: _____

Entity: _____ S _____ T _____ R _____ Lease: _____

Name: _____

API: _____

Entity: _____ S _____ T _____ R _____ Lease: _____

Name: _____

API: _____

Entity: _____ S _____ T _____ R _____ Lease: _____

OPERATOR CHANGE DOCUMENTATION

- N/A 1. (r649-8-10) Sundry or other legal documentation has been received from the **FORMER** operator (attach to this form).
- lec 2. (r649-8-10) Sundry or other legal documentation has been received from the **NEW** operator (Attach to this form). (Reg. 7-25-96) (Le. 8-5-96)
- lec 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is the company registered with the state? (yes/no) _____ If yes, show company file number: 02-081180 (Le. 5-8-96)
- lec 4. **FOR INDIAN AND FEDERAL WELLS ONLY.** The BLM has been contacted regarding this change. Make note of BLM status in comments section of this form. BLM approval of Federal and Indian well operator changes should ordinarily take place prior to the division's approval, and before the completion of steps 5 through 9 below.
- lec 5. Changes have been entered in the Oil and Gas Information System (3270) for each well listed above. (8-6-96)
- lec 6. Cardex file has been updated for each well listed above. (8-6-96)
- lec 7. Well file labels have been updated for each well listed above. (8-6-96)
- lec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to Trust Lands, Sovereign Lands, UGS, Tax Commission, etc. (8-6-96)
- lec 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

ENTITY REVIEW

- LC 1. (r649-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) no If entity assignments were changed, attach copies of Form 6, Entity Action Form.
- N/A 2. Trust Lands, Sovereign Lands, Tax Commission, etc., have been notified through normal procedures of entity changes.

BOND VERIFICATION - (FEE WELLS ONLY)

- Trust Lands/Reid Bond Rider "Columbia to Aviaera"*
**Reid "Rider" 8-5-96; bond no. chgd to 4274145L*
80,000 Aviaera Energy Corporation, United Pacific Ins.
- LC 1. (r649-3-1) The NEW operator of any fee lease well listed above has furnished a proper bond.
2. A copy of this form has been placed in the new and former operator's bond files. ** Upon Compl. of routing.*
- N/A 3. The FORMER operator has requested a release of liability from their bond (yes/no) , as of today's date . If yes, division response was made to this request by letter dated .

LEASE INTEREST OWNER NOTIFICATION OF RESPONSIBILITY

1. Copies of documents have been sent on to at Trust Lands for changes involving State leases, in order to remind that agency of their responsibility to review for proper bonding.

FILMING

- WDR 1. All attachments to this form have been microfilmed. Today's date August 21, 1996

FILING

1. Copies of all attachments to this form have been filed in each well file.
2. The original of this form, and the original attachments are now being filed in the Operator Change file.

COMMENTS

760725 Bym/SL Aprv. rH 5-1-96

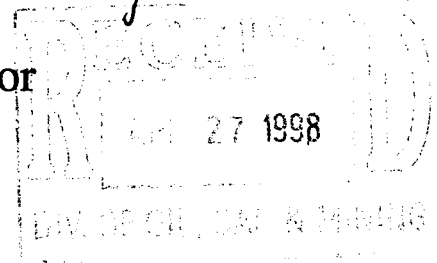


United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Moab District
82 East Dogwood
Moab, Utah 84532

cc: JKB
RJK
SLS
orig: route



3160
(Kane Springs Unit)
(U-53624)
(UT-065)

APR 23 1998

Mr. Donnie Worthington
Aviara Energy Corporation
P.O. Box 1350
Houston, Texas 77251-1350

Re: Gas Flaring Request (NTL-4A)
Kane Springs Unit
Wells No. 27-1, 19-1A, 10-1 and 34-1
Grand County, Utah

Dear Mr. Worthington:

We have reviewed your March 6th request to continue flaring produced gas from the above captioned wells. After reviewing our original economic analysis and the production histories for the wells, we agree that production from these four wells cannot offset the cost of constructing gas sales facilities under present conditions.

We first conducted a thorough economic analysis of the feasibility of constructing a gasline and associated sales facilities in 1992. Using the parameters set forth in relevant guidance documents (Conservation Division Manual 644.5, Washington Office Instruction Memorandum 87-652 and Notice to Lessees 4A), we found that the cost of gas facility construction would impose an undue economic burden on the operator. Our annual reviews have confirmed these findings.

The economic scenario today is certainly different than it was when we performed our initial 1992 analysis. At that time the field was new and initial production was high. In the intervening six years the wells have exhibited rapid production decline as is typical of horizontal completions. Aviara's most recent reservoir calculations, which we believe are reasonable, indicate that only 17% of original recoverable oil remains in place, and 20% of recoverable gas remains.

Considering this, we conclude that capturing the gas from the four subject wells remains uneconomic. Therefore, you are approved to continue to flare gas from these wells pursuant to NTL-4A. This approval is effective immediately. No expiration date has been specified; however, if new information reveals a viable alternative to gas flaring, the Bureau of Land Management (BLM) will issue a revised decision on this matter. As with all previous approvals, the following conditions apply:

1. Should economic conditions substantially change in favor of marketing the gas, the Bureau of Land Management will revise its position authorizing gas flaring. Such conditions affecting economics could include gas price increase, revising the gas pipeline design, or any other circumstances that would act to lessen gas marketing or operating costs.
2. All produced gas shall be measured in accordance with Onshore Oil and Gas Order No. 5.
3. All gas not being used on the lease shall be flared in a pit designed to reduce the flare from sight of the general public (the pits currently being used accomplish this).
4. BLM shall be kept apprised of any negotiations regarding gas marketing.
5. BLM shall be kept apprised of any feasibility studies to inject the gas or redesign the proposed pipeline that could significantly change the economics favoring conservation of the natural gas.

Should you have any questions regarding this matter, please call Eric Jones at (435) 259-2117.

Sincerely,

/s/ Brad D Palmer

Assistant District Manager
Resource Management

cc: UT-931, Utah State Office
State of Utah, Division of Oil, Gas and Mining ✓
ATTN: Mr. John Baza
P.O. Box 145801
Salt Lake City, Utah 84114-5801

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

FORM APPROVED
Budget Bureau No. 1004-0135
Expires July 31, 1996

5. Lease Serial No.

UTU-53624

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
Kane Springs Federal Unit

8. Well Name and No.
Kane Springs Fed.
#25-19-34-1

9. API Well No.
43-019-31334

10. Field and Pool, or Exploratory Area
Bartlett Flat

11. County or Parish, State
Grand County, UT

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Aviara Energy Corporation

3a. Address

P.O. Box 1350, Houston TX 77251-1350

3b. Phone No. (include area code)

713-871-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

934' FNL & 1678' FEL
Sec. 34, T25S, R19E

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

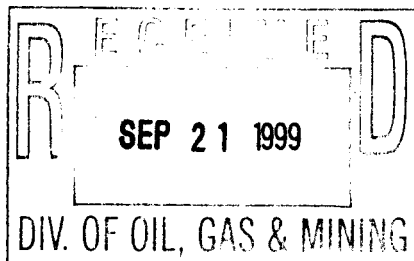
TYPE OF ACTION

- | | | | |
|---|---|--|---|
| <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input checked="" type="checkbox"/> Other <u>Workover</u> |
| <input type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon | <u>to enhance</u> |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Disposal | <u>production</u> |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Aviara Energy Corporation proposes to workover the above referenced well on or about October 18, 1999 as per the attached procedures.

COPY SENT TO OPERATOR
Date: 9-27-99
Initials: CHD



APPROVED

The Utah Division of Oil, Gas and Mining
Robert J. Krueger, PE, Petroleum Engineer

Date: 9-27-99

Federal Approval Of This
Action Is Necessary

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Victoria Guidry

Title

Production/Regulatory Coordinator

Date

9/17/99

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

FEDERAL #34-1 PROCEDURE

AFE # 991108

1. Pump 140 Bbls FW down casing early in AM, and speed well to max SPM.
2. MIRU. TOH w/ rods and pump.
3. NU BOPs, TOH & LD 2-7/8" tbg.
4. PU mill assembly, jars, DCs, and 2-7/8" work string. PKR HAS 3-1/4" SEALBORE.
5. TIH w/ tbg to pkr @ 7080'. NOTE: PACKER DOES NOT HAVE MILLOUT EXT.
6. RU circulating head, and power swivel.
7. Mill out pkr. Reverse lease SW down annulus while milling. Well should circulate.
8. TOH, retrieve pkr assembly and LD same.
9. PU 3-3/4" bit (large nozzles), 700' 2-7/8" WS, oil jars, and TIH w/ 2-7/8" WS to PBTD @ 7988'. Mill through any plugs.
10. Circulate 140 Bbls FW down tbg at maximum pump rate, while working tbg up and down at least 40'.
11. TOH w/ bit.
12. PU OS, jars, and DCs, TIH w/ 2-7/8" WS and engage top of liner @ 8658'.
13. Jar 4-1/2" liner out of hole and LD WS and liner.
14. PU tailpipe tbg, tbg anchor, SN, and TIH w/ 6870' of 2-7/8" tbg.
15. Set tbg anchor, ND BOPs, NU pumping flange.
16. Swab well until clean, reversing lease water down annulus to clean hole.
17. Run rods and pump, put well to pumping.

**Aviara Energy
Corporation**

RECEIVED

DEC 23 1999

DIVISION OF OIL, GAS & MINING

December 20, 1999

State of Utah
Division of Oil, Gas, & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Reference: Kane Springs Federal #25-19-34-1

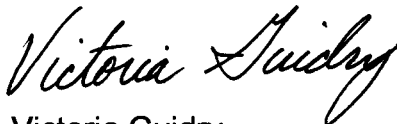
Dear Sirs:

Enclosed please find three copies of the Sundry Notice of the workover operations performed on the above referenced well. This Sundry Notice was also submitted to the Bureau of Land Management, Moab office.

If you require additional information or have any questions please contact Mark Swisher, Production Engineer, or myself at 713-871-3400.

Very truly yours,

AVIARA ENERGY CORPORATION



Victoria Guidry
Production/Regulatory Coordinator

/vlg

Enclosures

H:\...reg\053d

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires July 31, 1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Aviara Energy Corporation

3a. Address

P.O. Box 1350, Houston TX 77251-1350

3b. Phone No. (include area code)

713-871-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

**934' FNL & 1678' FEL
Sec. 34, T25S, R19E**

5. Lease Serial No.

UTU-53624

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
Kane Springs Federal Unit

8. Well Name and No.

**Kane Springs Fed.
#25-19-34-1**

9. API Well No.

43-019-31334

10. Field and Pool, or Exploratory Area

Bartlett Flat

11. County or Parish, State

Grand County, UT

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent

☒ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize

☐ Deepen

☐ Production (Start/Resume)

☐ Water Shut-Off

☐ Alter Casing

☐ Fracture Treat

☐ Reclamation

☐ Well Integrity

☐ Casing Repair

☐ New Construction

☐ Recomplete

☒ Other Workover

☐ Change Plans

☐ Plug and Abandon

☐ Temporarily Abandon

to enhance

☐ Convert to Injection

☐ Plug Back

☐ Water Disposal

production

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

SEE THE ATTACHED SUMMARY OF THE WORKOVER OPERATIONS PERFORMED

DIVISION OF OIL, GAS & MINING

DEC 23 1999

RECEIVED

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Victoria Guidry

Title

Production/Regulatory Coordinator

Date

12/20/99

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

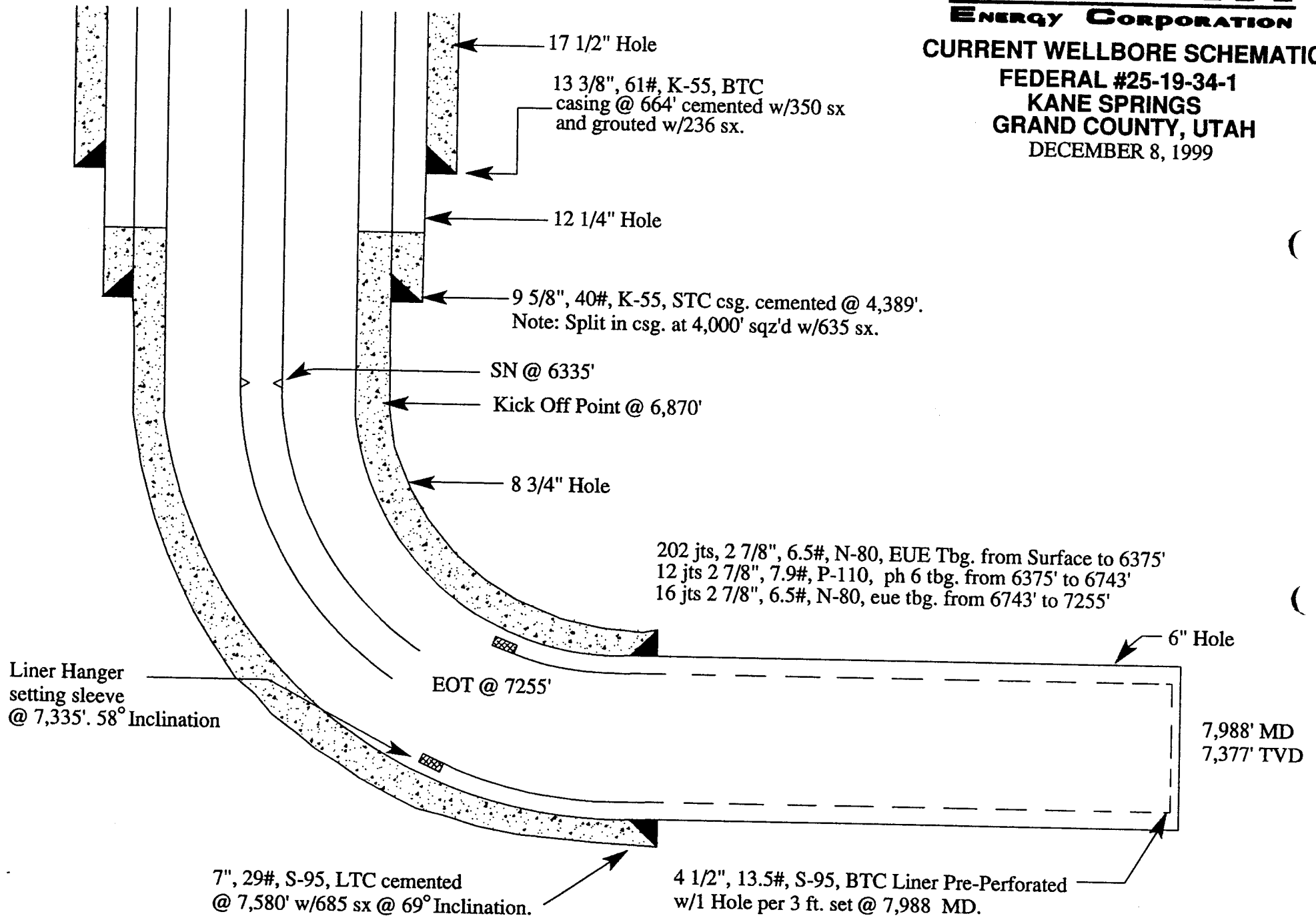
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

FEDERAL #34-1 WORKOVER

1. MIRU. TOH w/ rods and pump.
2. NU BOPs, TOH & LD 2-7/8" tbg.
3. PU mill assembly, jars, DCs, and 2-7/8" work string.
4. TIH w/ WS to pkr @ 7080'.
5. RU circulating head, and power swivel.
6. Milled out pkr.
7. TOH, retrieved pkr assembly and LD same.
8. PU 2-7/8" mule shoe, TIH w/ 2-7/8" WS to liner top @ 7335'.
9. Reverse circulated SW to clean up pkr debris, and displace oil from csg.
10. Continued in hole to PBTD @ 7988', washing down each joint to clean debris and diverter balls from lateral.
11. Circulated 140 Bbls FW down tbg at 5 BPM, while working tbg up and down 40'.
12. TOH & LD WS (except 12 jts PH 6 tbg).
13. PU production tbg, SN, and TIH to 7255'.
14. ND BOPs, NU pumping flange.
15. LD rods, well flowing.

DECEMBER 8, 1999



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires July 31, 1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
Aviara Energy Corporation

3a. Address
P.O. Box 1350, Houston TX 77251-1350

3b. Phone No. (include area code)
713-871-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
934' FNL & 1678' FEL
Sec. 34, T25S, R19E

5. Lease Serial No.

UTU-53624

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
Kane Springs Federal Unit

8. Well Name and No.
Kane Springs Fed.
#25-19-34-1

9. API Well No.
43-019-31334

10. Field and Pool, or Exploratory Area
Bartlett Flat

11. County or Parish, State
Grand County, UT

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|---|---|--|--|
| <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input checked="" type="checkbox"/> Other <u>Connected</u> |
| <input type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon | <u>Rod Pump</u> |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

After workover in December 1999 well began to flow so it was not put back on pump.

March 2000 it became necessary to run rods and pump back in well to maximize production.

Well pumping 3/31/00

RECEIVED

MAY 01 2000

DIVISION OF
OIL, GAS AND MINING

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Victoria Guidry

Victoria Guidry

Title

Production/Regulatory Coordinator

Date

04/27/00

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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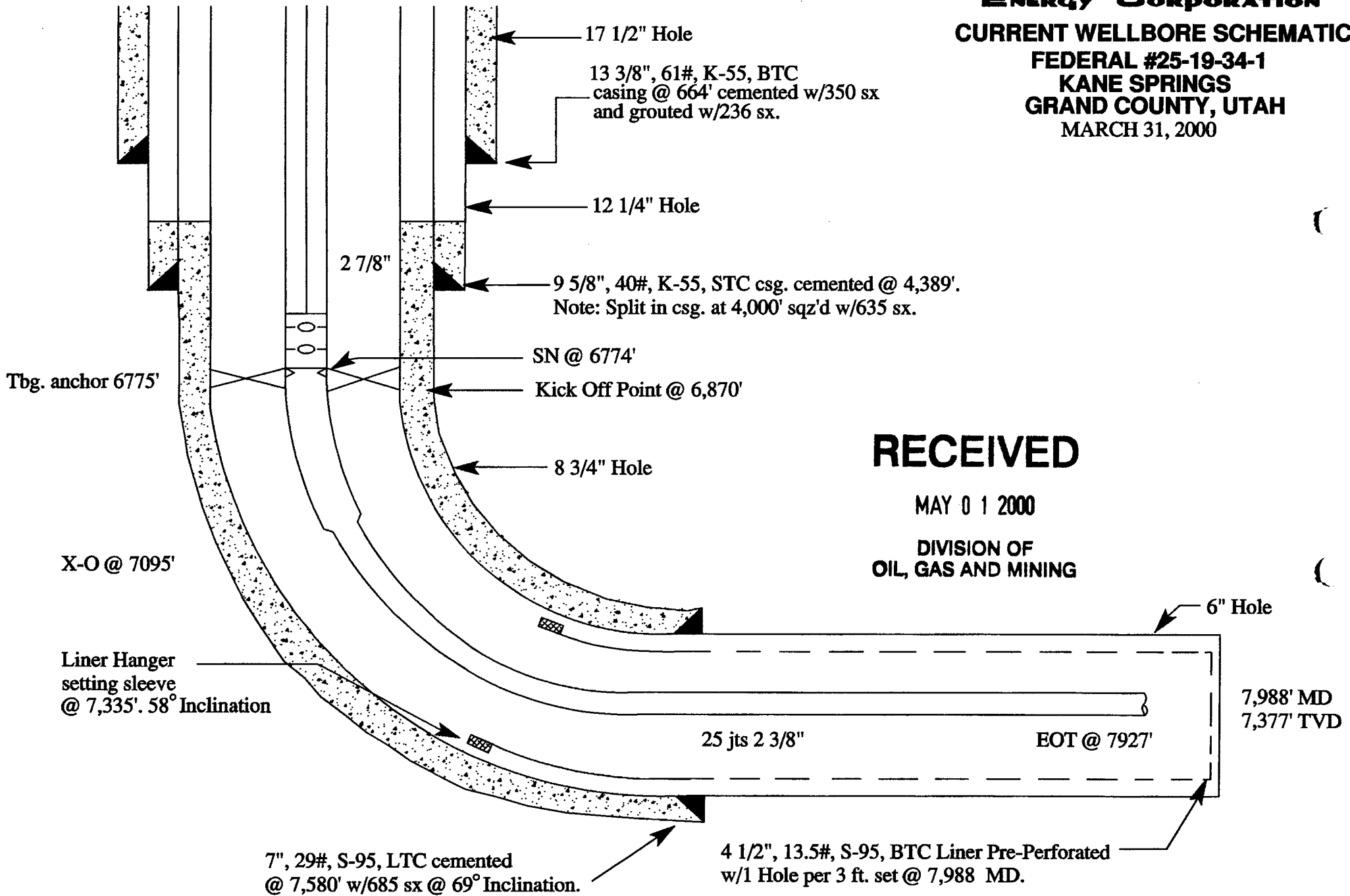
(Instructions on reverse)

AVIARA

ENERGY CORPORATION

CURRENT WELLBORE SCHEMATIC

FEDERAL #25-19-34-1
KANE SPRINGS
GRAND COUNTY, UTAH
MARCH 31, 2000



RECEIVED

MAY 01 2000

DIVISION OF
OIL, GAS AND MINING

HUNT PETROLEUM (AEC), INC.
1601 Elm Street, Suite 3400
Dallas, Texas 75201

July 11, 2002

State of Utah
Department of Oil, Gas & Minerals
1594 West N. Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Attn: Mr. Jim Hamilton

Re: Travelers Bond No. 103860066

Dear Sir:

This is to advise you that Aviara Energy Corporation has changed its name to Hunt Petroleum (AEC), Inc., effective July 1, 2002. Attached is a Surety Rider to Travelers Bond #103860066 (which replaced CNA Bond No. 159209096) and a copy of the Surety Bond on State of Utah Form 4A currently on file with the State of Utah, Department of Natural Resources.

If you have any questions please give me a call at (214) 880-8916.

Yours very truly,

Mary Melvin
Mary Melvin
Legal Assistant

attachments

cc: Max Gardner (w/enc.)
Donny Worthington (w/enc.)
Gerald Phillips (w/enc.)

Receipt acknowledged this ___ day of July 2002.

STATE OF UTAH, Department of Oil, Gas & Minerals

By: _____

Title: _____

RECEIVED
JUL 15 2002
DIVISION OF
OIL, GAS AND MINING

OPERATOR CHANGE WORKSHEET**ROUTING**

1. GLH

2. CDW ✓

3. FILE

Change of Operator (Well Sold)

Designation of Agent

X Operator Name Change

Merger

The operator of the well(s) listed below has changed, effective: **07-01-2002****FROM: (Old Operator):**

AVIARA ENERGY CORPORATION

Address: 1601 ELM STREET, STE 3400

DALLAS, TX 75201

Phone: 1-(214)-880-8850

Account No. N5500

TO: (New Operator):

HUNT PETROLEUM (AEC) INC

Address: 1601 ELM STREET, STE 3400

DALLAS, TX 75201

Phone: 1-(214)-880-8850

Account No. N2180

CA NO.**Unit: KANE SPRINGS****WELL(S)**

NAME	SEC TWN RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
KANE SPRINGS FEDERAL 10-1	10-25S-18E	43-019-31331	11414	FEDERAL	OW	P
KANE SPRINGS FEDERAL 27-1	27-25S-19E	43-019-31310	11180	FEDERAL	OW	P
KANE SPRINGS FEDERAL 28-1	28-25S-19E	43-019-31325	11354	FEDERAL	OW	S
KANE SPRINGS FEDERAL 25-19-34-1	34-25S-19E	43-019-31334	11521	FEDERAL	OW	P
KANE SPRINGS FEDERAL 20-1	20-26S-19E	43-019-31332	11670	FEDERAL	OW	S
KANE SPRINGS FEDERAL 19-1A	19-26S-20E	43-019-31324	11353	FEDERAL	OW	P

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 07/15/2002
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 08/07/2002
- The new company has been checked through the **Department of Commerce, Division of Corporations Database** on: 08/07/2002
- Is the new operator registered in the State of Utah: YES Business Number: 56883-0143
- If **NO**, the operator was contacted on: N/A
- (R649-9-2) Waste Management Plan received on: IN PLACE
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: 07/01/2002

7. Federal and Indian Units:

The BLM or BIA has approved the successor of unit operator for wells listed on: 07/01/2002

8. Federal and Indian Communization Agreements ("CA"):

The BLM or BIA has approved the operator for all wells listed within a CA on: N/A

9. Underground Injection Control ("UIC")

The Division has approved UIC Form 5, **Transfer of Authority to Inject**,

for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 07/08/2002

DATA ENTRY:

1. Changes entered in the Oil and Gas Database on: 08/07/2002

2. Changes have been entered on the Monthly Operator Change Spread Sheet on: 08/07/2002

3. Bond information entered in RBDMS on: N/A

4. Fee wells attached to bond in RBDMS on: N/A

STATE WELL(S) BOND VERIFICATION:

1. State well(s) covered by Bond Number: N/A

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: CO-1274

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: N/A

FEE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number N/A

2. The **FORMER** operator has requested a release of liability from their bond on: N/A

The Division sent response by letter on: N/A

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

COMMENTS:



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Colorado State Office
2850 Youngfield Street
Lakewood, Colorado 80215-7076

IN REPLY REFER TO
3106 (MM)

July 22, 2002

NOTICE

Hunt Petroleum (AEC), Inc.
1601 Elm Street, Suite 3400
Dallas, TX 75201

:
:
: Oil and Gas
:

Name Change Recognized

Acceptable evidence was filed and accepted by this office concerning the name change of Aviara Energy Corporation to Hunt Petroleum (AEC), Inc. with Hunt Petroleum (AEC), Inc. being the surviving entity. For our purposes, the name change was recognized effective July 1, 2002 the date of acceptance by the Secretary of the State of Delaware.

A rider changing the name of the principal on Nationwide bond number 159209244 (BLM Bond CO-1274) previously held by Aviara and issued by Continental Casualty Company, was changed to Hunt Petroleum (AEC), Inc. effective July 12, 2002.

The oil and gas lease files identified on the enclosed Exhibit A, supplied by Hunt Petroleum (AEC), Inc. were updated to reflect the new name. We have not abstracted the lease files to determine if the entities affected by the name change hold an interest in the leases identified nor have we attempted to identify leases where the entity is the operator on the ground maintaining no vested record title or operating rights interests. We are notifying the Mineral Management Services (MMS) and applicable Bureau of Land Management (BLM) Field Offices of the name change by copy of this notice. If our field offices require additional documentation for changes of operator, they will contact you.

If you identify additional leases where the affected parties maintain an interest, please contact this office and we will document the files under our jurisdiction with a copy of this Notice. If the leases are under the jurisdiction of another State Office, we will notify them.

If you have any questions concerning this correspondence, please call Martha Maxwell at (303)239-3768.

Martha Maxwell
FOR Beverly Derringer
Chief, Fluid Minerals Adjudication

Exhibit A sent to Eastern SO, New Mexico SO, Montana SO, Utah SO, Wyoming SO &
MMS-MRM, MS357B1, PO Box 5760, Denver, CO 80217
Decision Letter sent to All State Offices via BLM_Fluids_Forum

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>See attachment</u>		5. LEASE DESIGNATION AND SERIAL NUMBER:
2. NAME OF OPERATOR: Hunt Petroleum (AEC), Inc.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 1601 Elm Street, Suite 3400 Dallas, TX 75201		7. UNIT or CA AGREEMENT NAME:
PHONE NUMBER: 214-880-8855		8. WELL NAME and NUMBER:
4. LOCATION OF WELL FOOTAGES AT SURFACE:		9. API NUMBER:
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:		10. FIELD AND POOL, OR WILDCAT:
		COUNTY:
		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Change of company from Aviara Energy Inc. to Hunt Petroleum (AEC), Inc.
effective July 1, 2002.

NAME (PLEASE PRINT) Lisa Augustine TITLE Agent
SIGNATURE *Lisa Augustine* DATE August 6, 2002

(This space for State use only)

RECEIVED
AUG 07 2002
DIVISION OF
OIL, GAS AND MINING

api	well_name	section	township	range	ll_status_m
4301931310	KANE SPRINGS FED 27-1	27	250S	190E	P
4301931324	KANE SPRINGS FED 19-1A	19	260S	200E	P
4301931325	KANE SPRINGS FED 28-1	28	250S	190E	S
4301931331	KANE SPRINGS FED 10-1	10	250S	180E	P
4301931332	KANE SPRINGS FED 20-1	20	260S	190E	S
4301931334	KANE SPRINGS FED 25-19-34-1	34	250S	190E	P
4301931363	CANE CREEK FEDERAL 7-1	07	250S	190E	DRL
4301931364	CANE CREEK FED 11-1	11	260S	190E	DRL
4301931365	CANE CREEK 30-1	30	260S	200E	APD
4301931379	KANE SPRINGS FED 3-1	03	260S	190E	APD
4303730572	GOVT EVELYN CHAMBERS 1	06	310S	240E	S
4303730612	GOVT EVELYN CHAMBERS 2	05	310S	240E	S
4304731768	COWDEN 31-3-C	31	060S	210E	S
4304731769	FEDERAL 33-6-F	33	060S	210E	P
4304731787	FEDERAL 33-8-N	33	060S	210E	P
4304731804	FEDERAL 33-3-J	33	060S	210E	S
4304731844	FEDERAL 33-7-L	33	060S	210E	P
4301931341	KANE SPRINGS 16-1	16	250S	180E	A
4304731776	ALTA 5-1-B	05	070S	210E	P
4304731843	ALTA 5-2-C	05	070S	210E	P

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires January 31, 2004

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. U-53624
2. Name of Operator Hunt Petroleum (AEC), Inc.		6. If Indian, Allottee or Tribe Name N/A
3a. Address P. O. Box 1350 Houston, Texas 77251-1350	3b. Phone No. (include area code) (713) 871-3400	7. If Unit or CA/Agreement, Name and/or No. Kane Springs Federal
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 934' FNL & 1678' FEL Sec. 34-T25S-R19E		8. Well Name and No. Kane Springs Federal #34-1
		9. API Well No. 43-019-31334
		10. Field and Pool, or Exploratory Area Bartlett Flat Field
		11. County or Parish, State Grand County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Site Security Diagram</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

See attached for revised site security diagram

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY

RECEIVED
FEB 21 2003
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Victoria Guidry

Title Regulatory Coordinator

Signature

Victoria Guidry

Date 2/20/03

Approved by

Title

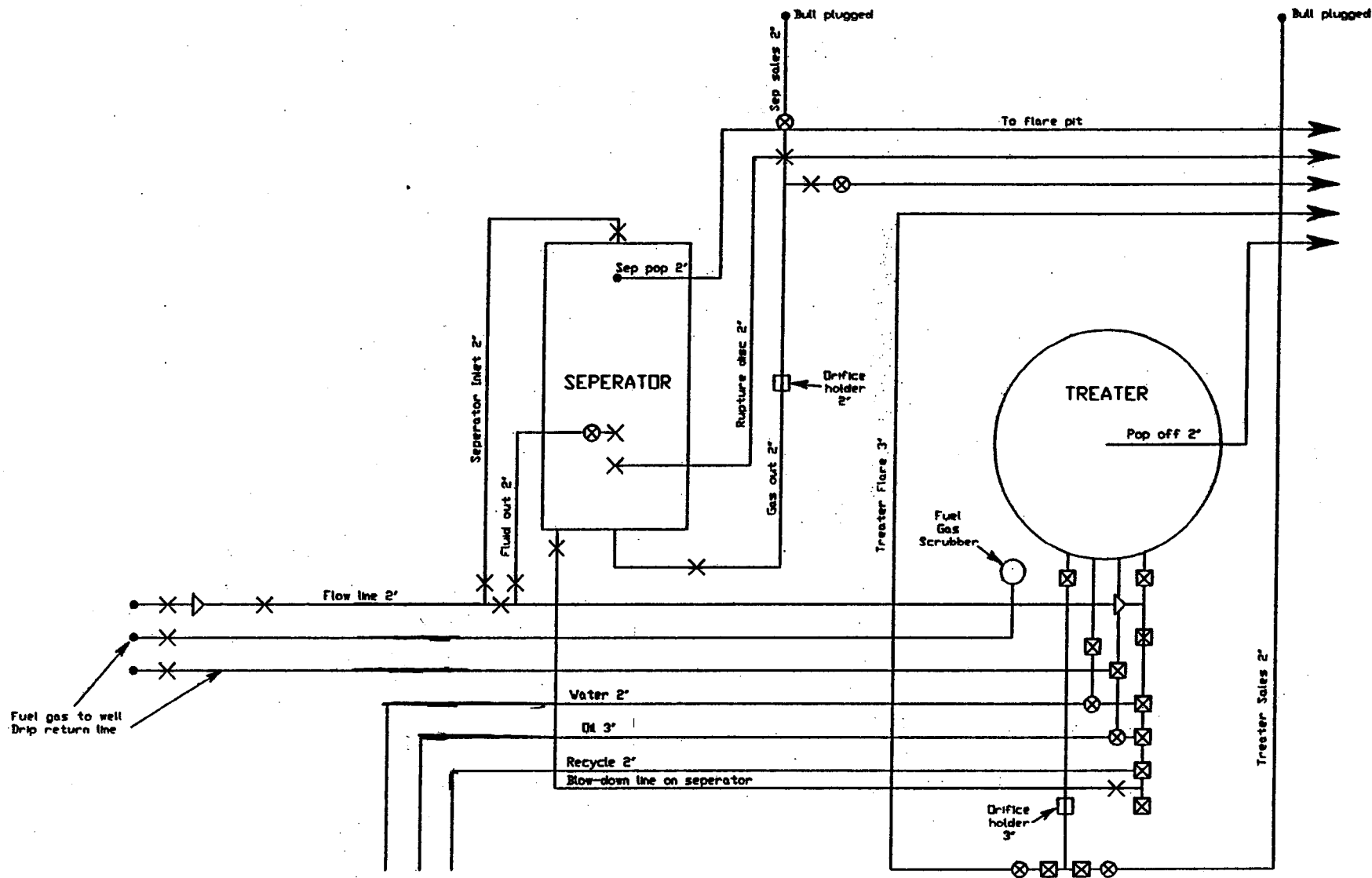
Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)



LEGEND

- ☒ Sealable valve
- ▤ Check valve
- ✕ Valve
- ⊗ Back pressure or dump valve

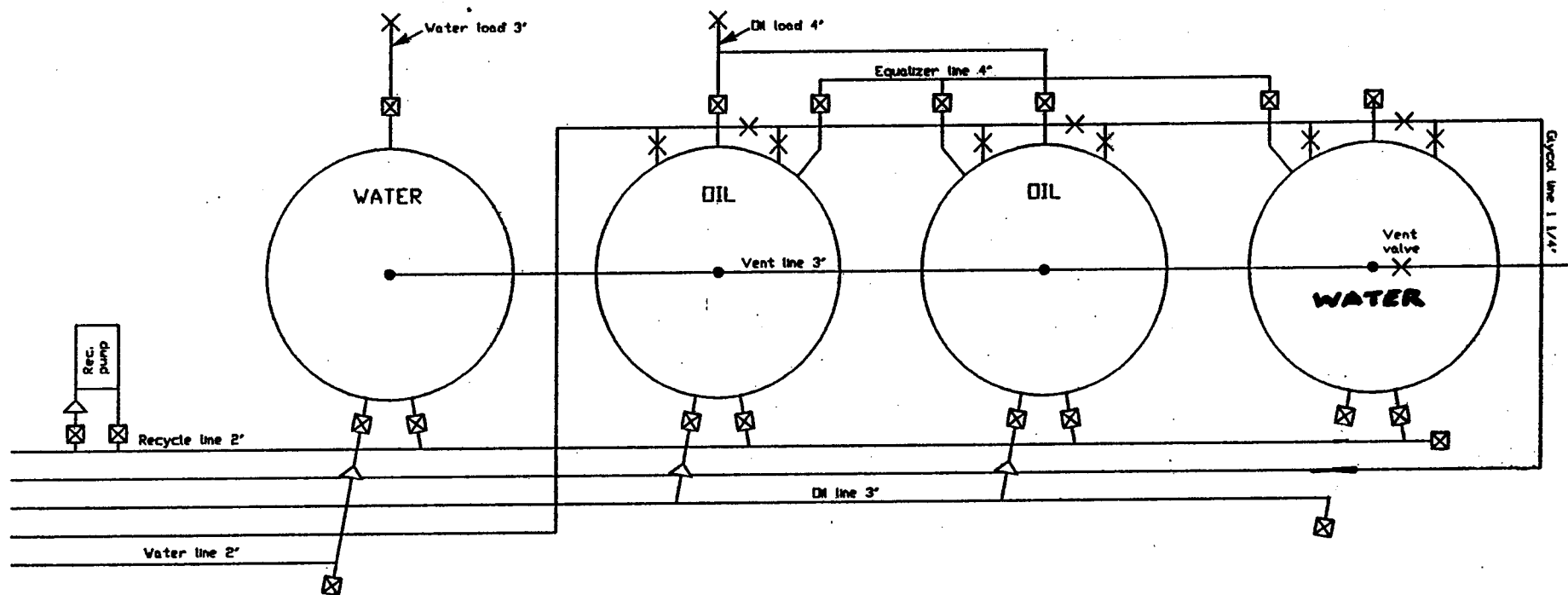
Hunt
Petroleum

KANE SPRINGS FEDERAL 34-1
GRAND COUNTY, UTAH

SITE SECURITY DIAGRAM

drafter: SPF
date: 25-JAN-94

acct: null
drg: kap34-1_etc



LEGEND

- ☒ Sealable valve
- ▤ Check valve
- ✕ Valve
- ⊗ Back pressure or dump valve

Hunt
Petroleum

KANE SPRINGS FEDERAL 34-1
GRAND COUNTY, UTAH

SITE SECURITY DIAGRAM

drafter: SW
date: 25-JAN-94

occd: msl
dvgd: hsp34-Lunt2



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

IN REPLY REFER TO
UT-922

April 28, 2003

Intrepid Oil & Gas, L.L.C.
Attn: Jan Podoll
700 17th Street, Suite 1700
Denver, Colorado

Re: Kane Springs Unit
Grand & San Juan Counties, Utah

Gentlemen:

On April 25, 2003, we received an indenture dated April 23, 2003, whereby Hunt Petroleum (AEC), Inc. resigned as Unit Operator and Intrepid Oil & Gas, L.L.C. was designated as Successor Unit Operator for the Kane Springs Unit, Grand and San Juan Counties, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective April 28, 2003. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under the Kane Springs Unit Agreement.

Your statewide (Utah) oil and gas bond No. UTB000029 will be used to cover all operations within the Kane Springs Unit.

It is requested that you notify all interested parties of the change in unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely,

/s/ Robert A. Henricks

Robert A. Henricks
Chief, Branch of Fluid Minerals

Enclosure

bcc: Field Manager - Moab (w/enclosure)
SITLA
Division of Oil, Gas & Mining
Minerals Adjudication Group
File - Kane Springs Unit (w/enclosure)
Agr. Sec. Chron
Fluid Chron

UT922:TAThompson:tt:4/28/03

Results of query for MMS Account Number UTU67755

Production	API Number	Operator	Well Name	Well Status	Lease or CA Number	Inspection Item	Township	Range	Section	Quarter/Quarter
Production	4301931310	HUNT PETROLEUM (AEC) INC	27-1 KANE SPRING-FED	POW	UTU65971	UTU67755A	25S	19E	27	NWSE
Production	4301931334	HUNT PETROLEUM (AEC) INC	25-19-34-1 KANE SPRG	POW	UTU53624	UTU67755A	25S	19E	34	NWNE
Production	4301931319	HUNT PETROLEUM (AEC) INC	19-1 KANE SPRINGS	P+A	UTU53626	UTU67755B	26S	20E	19	SWSE
Production	4301931324	HUNT PETROLEUM (AEC) INC	19-1A KANE SPRINGS	POW	UTU53626	UTU67755B	26S	20E	19	SESW
Production	4301931331	HUNT PETROLEUM (AEC) INC	10-1 KANE SPRINGS	POW	UTU47858	UTU67755C	25S	18E	10	NWSE

DISCLAIMER for online data: No warranty is made by the BLM for use of the data for purposes not intended by the BLM.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NUMBER: U-53624
2. NAME OF OPERATOR: Hunt Petroleum (AEC), Inc.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Kane Springs Federal Unit
3. ADDRESS OF OPERATOR: P. O. Box 1350 CITY Houston STATE TX ZIP 77251		7. UNIT or CA AGREEMENT NAME: Kane Springs Federal
4. LOCATION OF WELL FOOTAGES AT SURFACE: 934' FNL & 1678' FEL		8. WELL NAME and NUMBER: #25-19-34-1 Kane Springs Federal
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 34 25S 19E		9. API NUMBER: 43-019-31334
COUNTY: Grand		10. FIELD AND POOL, OR WILDCAT: Bartlett Flat
STATE: UTAH		

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

On April 28, 2003, Hunt Petroleum (AEC), Inc. resigned as Operator of the Kane Springs Federal Unit and Intrepid Oil & Gas, LLC was designated successor Unit Operator. Concurrent with this action, Hunt Petroleum (AEC), Inc. resigns as Operator of this well and names Intrepid Oil & Gas, LLC as successor Operator.

NAME (PLEASE PRINT) Melinda Mayse	TITLE Regulatory Coordinator Agent
SIGNATURE <i>Melinda Mayse</i>	DATE June 24, 2003

(This space for State use only)

RECEIVED

JUN 25 2003

DIV. OF OIL, GAS & MINING

OPERATOR CHANGE WORKSHEET

ROUTING

1. GLH
2. CDW
3. FILE

X Change of Operator (Well Sold)

Designation of Agent/Operator

Operator Name Change

Merger

The operator of the well(s) listed below has changed, effective:

04/28/2003

FROM: (Old Operator): HUNT PETROLEUM CORPORATION 1601 Elm Street, Suite 3400 Dallas, TX 75201 Phone: 1-(214) 880-8914 Account No. N 2180	TO: (New Operator): Intrepid Oil & Gas, LLC 700 17th Street, Suite 1700 Denver, CO 80202 Phone: 1-(303) 296-3006 Account No. N6810
--	---

CA No.

Unit: Kane Springs & Cane Creek

WELL(S)

NAME	SEC TWN RNG			API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
Kane Springs Unit								
KANE SPRINGS FED 27-1	27	250S	190E	4301931310	11180	Federal	OW	P
KANE SPRINGS FED 19-1A	19	260S	200E	4301931324	11353	Federal	OW	P
KANE SPRINGS FED 28-1	28	250S	190E	4301931325	11354	Federal	OW	S
KANE SPRINGS FED 10-1	10	250S	180E	4301931331	11414	Federal	OW	P
KANE SPRINGS FED 20-1	20	260S	190E	4301931332	11670	Federal	OW	S
KANE SPRINGS FED 25-19-34-1	34	250S	190E	4301931334	11521	Federal	OW	P
Cane Creek Unit								
CANE CREEK FED 11-1	11	260S	190E	4301931364	13477	Federal	OW	P

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 06/25/2003
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 06/27/2003
- The new company has been checked through the **Department of Commerce, Division of Corporations Database** on: 06/30/2003
- Is the new operator registered in the State of Utah: YES Business Number: 2029416-0161
- If **NO**, the operator was contacted on: _____

6. (R649-9-2)Waste Management Plan has been received on: IN PLACE

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 04/28/2003 BIA n/a

8. **Federal and Indian Units:**

The BLM or BIA has approved the successor of unit operator for wells listed on: 04/28/2003

9. **Federal and Indian Communization Agreements ("CA"):**

The BLM or BIA has approved the operator for all wells listed within a CA on: n/a

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A

DATA ENTRY:

1. Changes entered in the Oil and Gas Database on: 07/16/2003
2. Changes have been entered on the Monthly Operator Change Spread Sheet on: 07/16/2003
3. Bond information entered in RBDMS on: N/A
4. Fee wells attached to bond in RBDMS on: N/A

STATE WELL(S) BOND VERIFICATION:

1. State well(s) covered by Bond Number: N/A

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: UTB000029

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: N/A

FEE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number N/A
2. The **FORMER** operator has requested a release of liability from their bond on: N/A
The Division sent response by letter on: N/A

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

COMMENTS:

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal intervals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		6. LEASE DESIGNATION AND SERIAL NUMBER: See List below
2. NAME OF OPERATOR: Intrepid Oil & Gas, LLC		8. FIELD AND POOL, OR WILDCAT: See List below
3. ADDRESS OF OPERATOR: 700 17th Street		9. API NUMBER: See List
CITY Denver	STATE CO ZIP 80202	10. FIELD AND POOL, OR WILDCAT: See List below
4. LOCATION OF WELL FOOTAGES AT SURFACE: _____		COUNTY: Grand
5. QUARTER, SECTION, TOWNSHIP, RANGE, MERIDIAN: _____		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completed: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

On April 28, 2003, Intrepid Oil & Gas, LLC accepted designation as successor operator for the Kane Springs Federal Unit and became operator for the following wells:

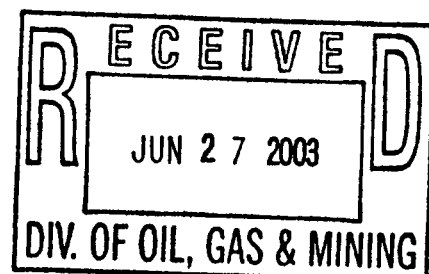
✓ Kane Springs Federal #19-1A - UTU-53526 - API 4301931324 - 800' FSL, 1918' FEL, 19-26S-20E
 Kane Springs Federal #25-19-34-1 - UTU-53624 - API 4301931334 - 934' FNL, 1678' FEL, 34-26S-19E
 Kane Springs Federal #27-1 - UTU-65971 - API 4301931310 - 1700' FEL, 1650' FSL, 27-25S-19E
 Kane Springs Federal #10-1 - UTU-47858 - API 4301931331 - 2333' FSL, 2112' FEL, 10-26S-18E
 Kane Creek #11-1 - UTU-65972 - API 4301931384 - 2220' FNL, 2060' FWL, 22-26S-19E
 Kane Springs Federal #28-1 - UTU-50678 - API 4301331325 - 1900' FSL, 1900' FEL, 28-25S-19E
 Kane Springs Federal #20-1 - UTU-54037 - API 4301931332 - 1000' FSL, 2400' FWL, 20-26S-19E

NAME (PLEASE PRINT) H. Richard MillerTITLE Special Projects ManagerSIGNATURE H. Richard MillerDATE 6/27/2003

(This space for State use only)

(5/2000)

(See Instructions on Reverse Side)



STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: Intrepid Oil & Gas LLC Operator Account Number: N 6810
Address: 700 17th St, Suite 1700
city Denver
state CO zip 80202 Phone Number: (303) 296-3006

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4301931396	Cane Creek 2-1		SENE	2	26S	19E	Grand
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
D	13477	14505				1/18/2005	
Comments: Correction requested by operator to separate entity number. (DOGM error) Please correct production reports back to beginning of production.							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4301931310	Kane Springs Fed 27-1		NWSE	27	25S	19E	Grand
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
D	11180	14506				1/18/2005	
Comments: Correction requested by operator due to unit change. Please correct reports effective 5/18/2004. (PA "A")							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
43019 31334	Kane Springs Fed 25-19-34-1		NWNE	34	25S	19E	Grand
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
D	11521	14506 14511				1/18/2005	
Comments: Correction requested by operator due to unit change. Please correct reports effective 5/18/2004. (PA "A")							

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Earlene Russell For DOGM

Name (Please Print)

Earlene Russell

Signature

Engineering Tech

1/18/2005

Title

Date

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

ROUTING

1. DJJ

2. CDW

X - Change of Operator (Well Sold)

Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective:

10/1/2006

FROM: (Old Operator):
N6810-Intrepid Oil & Gas, LLC
700 17th St, Suite 1700
Denver, CO 80202
Phone: 1 (303) 296-3006

TO: (New Operator):
N3135-Babcock & Brown Energy, Inc.
1512 Larimer St, Suite 550
Denver, CO 80202
Phone: 1 (303) 460-1132

CA No.

Unit:

CANE CREEK

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 12/18/2006
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 12/18/2006
3. The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 12/28/2006
- 4a. Is the new operator registered in the State of Utah: YES Business Number: 6404096-0143
- 5a. (R649-9-2) Waste Management Plan has been received on: REQUESTED
- 5b. Inspections of LA PA state/fee well sites complete on: n/a
- 5c. Reports current for Production/Disposition & Sundries on: OK
6. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 12/19/2006 BIA
7. **Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: 12/19/2006
8. **Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a
9. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: n/a

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database** on: 12/28/2006
2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 12/26/2006
3. Bond information entered in RBDMS on: 12/28/2006
4. Fee/State wells attached to bond in RBDMS on: 12/28/2006
5. Injection Projects to new operator in RBDMS on: n/a
6. Receipt of Acceptance of Drilling Procedures for APD/New on: 12/28/2006

BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: UTB000240
- 3a. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 8785513659
- 3b. The **FORMER** operator has requested a release of liability from their bond on: not yet

LEASE INTEREST OWNER NOTIFICATION:

4. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: See attached Exhibit
2. NAME OF OPERATOR: Babcock & Brown Energy Inc. <i>N3135</i>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: See attached Exhibit
3. ADDRESS OF OPERATOR: 1512 Larimer St, Suite 550 CITY Denver STATE CO ZIP 80202 PHONE NUMBER: (303) 460-1205		7. UNIT or CA AGREEMENT NAME: See attached Exhibit
4. LOCATION OF WELL FOOTAGES AT SURFACE: SEE ATTACHED EXHIBIT FOR ALL WELLS & DETAILS <i>1132</i> QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: STATE: UTAH		8. WELL NAME and NUMBER: See attached Exhibit
		9. API NUMBER: See attach
		10. FIELD AND POOL, OR WILDCAT: See attached Exhibit

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective October 1, 2006, Intrepid Oil & Gas LLC resigned as Operator of the wells listed on the attached Exhibit and Babcock & Brown Energy Inc. has been designated as successor Operator. Concurrent with this action, Intrepid Oil & Gas LLC resigns as Operator of this well and names Babcock & Brown Energy Inc. as successor Operator. Bond Number 8785513659 will be used to cover operations by Babcock & Brown Energy Inc.

(BLM Statewide Bond UTB-00240)

Intrepid Oil & Gas LLC

By: Intrepid Mining, LLC, its Sole Member

N6810
Robert P. Jorayvax, Manager

NAME (PLEASE PRINT) <u>Van Z. Spence</u>	TITLE <u>President</u>
SIGNATURE <u>[Signature]</u>	DATE <u>11/15/2006</u>

(This space for State Use Only)

APPROVED 1111107-41C
Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

12/28/06
all other wells

RECEIVED
DEC 18 2006

DIV. OF OIL, GAS & MINING

EXHIBIT "A"

Attached to Form 9, Change of Operator, from Intrepid Oil & Gas LLC to Babcock & Brown Energy Inc., effective October 1, 2006

LEASE	UNIT	WELL NAME/NUMBER	API NO.	FIELD	LOCATION							TYPE
					Footage		QrtQrt	Sec.	Twp	Rge	County	
UTU 047858	N/A	Long Canyon No. 1	43-019-15925	Long Canyon	2,339' FNL	2,473' FWL	SENW	9	26S	20E	Grand	Oil Well
UTU 065971	Kane Springs	Kane Springs Federal No. 27-1	43-019-31310	Big Flat	1,650' FSL	1,700' FEL	NWSE	27	25S	19E	Grand	Oil Well
UTU 053626	Kane Springs	Kane Springs Federal No. 19-1A	43-019-31324	Park Road	800' FSL	1,918' FEL	SWNE	19	26S	20E	Grand	Oil Well
ML-40761	Cane Creek	Cane Creek No. 2-1	43-019-31396	Big Flat	2,289' FNL	518' FEL	SENE	2	26S	19E	Grand	Oil Well
UTU 047858	Kane Springs	Kane Springs Federal No. 10-1	43-019-31331	Hell Roaring	2,333' FSL	2,112' FEL	NWSE	10	25S	18E	Grand	Oil Well
UTU 053624	Kane Springs	Kane Springs Federal No. 25-19-34-1	43-019-31334	Big Flat	934' FNL	1,678' FEL	NWNE	34	25S	19E	Grand	Oil Well
ML 44333	Kane Springs	Kane Springs Federal No. 16-1	43-019-31341	Wildcat	960' FSL	1,960' FWL	SESW	16	25S	18E	Grand	Water Disposal
UTU 065972	Cane Creek	Cane Creek No. 1-1 (Permit)	43-019-31446	Wildcat	2,240' FSL	1,317' FWL	NWSW	1	26S	19E	Grand	Oil Well
UTU 068122	Cane Creek	Cane Creek No.8-1 (Permit)	43-019-31449	Wildcat	2,563' FNL	1,429' FWL	SENW	8	26S	20E	Grand	Oil Well
UTU 046693	Cane Creek	Cane Creek 24-1 (Permit)	43-019-31447	Wildcat	682' FNL	2,829' FEL	NENW	24	26S	19E	Grand	Oil Well



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155



IN REPLY REFER TO
3180
UT-922

DEC 19 2006

Babcock & Brown Energy Inc.
1512 Larimer, Suite 550
Denver, CO 80202

Re: Cane Creek Unit
Grand & San Juan Counties,

Gentlemen:

On December 18, 2006, we received an indenture dated October 1, 2006, whereby Intrepid Oil & Gas LLC resigned as Unit Operator and Babcock & Brown Energy Inc. was designated as Successor Unit Operator for the Cane Creek Unit, Grand and San Juan Counties, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective December 19, 2006. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under the Cane Creek Unit Agreement.

Your statewide (Utah) oil and gas Bond No. UTB000240 will be used to cover all operations within the Cane Creek Unit.

It is requested that you notify all interested parties of the change in unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely,

/s/ Douglas Cook

Douglas Cook
Chief, Branch of Fluid Minerals

Enclosure

bcc: Field Manager -Moab (w/enclosure)
SITLA
Division of Oil, Gas & Mining
Dockets
File -Cane Creek Unit (w/enclosure)
Agr. Sec. Chron
Reading File
Central Files
CSeare:cs12/19/06Babcock

RECEIVED
DEC 21 2006

DIV. OF OIL, GAS & MINING

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

ROUTING

1. DJJ

2. CDW

X - Change of Operator (Well Sold)

Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective:

1/1/2008

FROM: (Old Operator): N3135-Babcock & Brown Energy, Inc. 1512 Larimer St, Suite 550 Denver, CO 80202 Phone: 1 (303) 460-1132	TO: (New Operator): N3155-Fidelity Exploration & Production Co 1700 Broadway, Suite 2800 Denver, CO 80203 Phone: 1 (303) 893-3133
---	--

CA No.				Unit:		CANE CREEK		
WELL NAME	SEC TWN RNG			API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
KANE SPRINGS FED 27-1	27	250S	190E	4301931310	14506	FEDERAL	OW	P
KANE SPRINGS FED 19-1A	19	260S	200E	4301931324	14507	FEDERAL	OW	P
KANE SPRINGS FED 10-1	10	250S	180E	4301931331	14509	FEDERAL	OW	P
KANE SPRINGS FED 25-19-34-1	34	250S	190E	4301931334	14511	FEDERAL	OW	P
KANE SPRINGS 16-1	16	250S	180E	4301931341	11484	STATE	WD	A
CANE CREEK 2-1	02	260S	190E	4301931396	14505	STATE	OW	P

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 1/11/2008
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 1/11/2008
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 1/28/2008
- a. Is the new operator registered in the State of Utah: yes Business Number: 4917099-0143
- a. (R649-9-2) Waste Management Plan has been received on: IN PLACE
- b. Inspections of LA PA state/fee well sites complete on: n/a
- c. Reports current for Production/Disposition & Sundries on:
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM not yet BIA
- Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: not yet
- Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a
- Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 1/29/2008

DATA ENTRY:

- Changes entered in the **Oil and Gas Database** on: 1/31/2008
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 1/31/2008
- Bond information entered in RBDMS on: 1/31/2008
- Fee/State wells attached to bond in RBDMS on: 1/31/2008
- Injection Projects to new operator in RBDMS on: 1/31/2008
- Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

BOND VERIFICATION:

- Federal well(s) covered by Bond Number: CO1345
- a. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 190017646
- b. The **FORMER** operator has requested a release of liability from their bond on: not yet

LEASE INTEREST OWNER NOTIFICATION:

- (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

COMMENTS: 3 Wells on list were previously moved due to Designation of Agent

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL

OIL WELL ☐

GAS WELL ☐

OTHER ☐

2. NAME OF OPERATOR:

Fidelity Exploration & Production Company

N3/55

3. ADDRESS OF OPERATOR:

1700 Broadway, Suite 2800 CITY Denver

STATE CO

ZIP 80203

PHONE NUMBER:

(303) 893-3133

5. LEASE DESIGNATION AND SERIAL NUMBER:

See Attached Exhibit

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

See Attached Exhibit

8. WELL NAME and NUMBER:

See Attached Exhibit

9. API NUMBER:

See Attach

10. FIELD AND POOL, OR WILDCAT:

See Attached Exhibit

4. LOCATION OF WELL

FOOTAGES AT SURFACE: SEE ATTACHED EXHIBIT FOR ALL WELLS AND DETAILS

COUNTY:

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE:

UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective January 1, 2008, Babcock & Brown Energy Inc. resigned as Operator of the wells listed on the attached Exhibit and Fidelity Exploration & Production Company has been designated as successor Operator. Concurrent with this action, Babcock & Brown Energy Inc. resigns as Operator of these wells and names Fidelity Exploration & Production Company as successor Operator. BLM Blanket Bond Number CO1345 and Utah OGCC Blanket Bond Number 190017646 will be used to cover operations by Fidelity Exploration & Production Company.

BABCOCK & BROWN ENERGY INC.

N3/35

By

Van Z. Spence, Resident

1512 Larimer St., Suite 550
Denver Co 80202
(303) 466-1132

NAME (PLEASE PRINT) Michael C. Caskey

TITLE Executive Vice President & Chief Operating Officer

SIGNATURE

DATE

January 1, 2008

(This space for State use only)

APPROVED 1/31/2008

Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

(See Instructions on Reverse Side)

RECEIVED

JAN 11 2008

DIV. OF OIL, GAS & MINING

EXHIBIT "A"

Attached to Form 9, Change of Operator, from Babcock & Brown Energy Inc. to Fidelity Exploration & Production Company, effective January 1, 2008

LEASE	UNIT	WELL NAME/NUMBER	API NO.	FIELD	LOCATION							TYPE
					Footage	QrtQrt	Sec.	Twp	Rge	County		
UTU 010529	N/A	Long Canyon No. 1	43-019-15925	Long Canyon	2,339' FNL	2,473' FWL	SENW	9	26S	20E	Grand	Oil Well
UTU 065971	Cane Creek	Kane Springs Federal No. 27-1	43-019-31310	Big Flat	1,650' FSL	1,700' FEL	NWSE	27	25S	19E	Grand	Oil Well
UTU 053626	Cane Creek	Kane Springs Federal No. 19-1A ST	43-019-31324	Park Road	800' FSL	1,918' FEL	SWSE	19	26S	20E	Grand	Oil Well
ML-40761 / UTU 065972	Cane Creek	Cane Creek No. 2-1	43-019-31396	Big Flat	2,289' FNL	518' FEL	SENE	2	26S	19E	Grand	Oil Well
UTU 047858	Cane Creek	Kane Springs Federal No. 10-1	43-019-31331	Hell Roaring	2,333' FSL	2,112' FEL	NWSE	10	25S	18E	Grand	Oil Well
UTU 053624	Cane Creek	Kane Springs Federal No. 25-19-34-1	43-019-31334	Big Flat	934' FNL	1,678' FEL	NWNE	34	25S	19E	Grand	Oil Well
ML-44333	Cane Creek	Kane Springs Federal No. 16-1	43-019-31341	Wildcat	960' FSL	1,960' FWL	SESW	16	25S	18E	Grand	Water Disposal
UTU 065972	Cane Creek	Cane Creek No. 1-1✱ (Permit)	43-019-31446	Wildcat	2,240' FSL	1,317' FWL	NWSW	1	26S	19E	Grand	
UTU 068122	Cane Creek	Cane Creek No. 8-1✱ (Drilling)	43-019-31449	Wildcat	2,563' FNL	1,429' FWL	SENW	8	26S	20E	Grand	
UTU 065973	Cane Creek	Cane Creek No. 24-1✱ (Drilling)	43-019-31447	Big Flat	682' FNL	2,829' FEL	NENW	24	26S	19E	Grand	

* previously changed by Designation of Operator

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: Fidelity Exploration and Production Company Operator Account Number: N 3155
 Address: 2585 Heartland drive
city Sheridan
state WY zip 82801 Phone Number: (307) 675-4924

Well 1

API Number	Well Name	QQ	Sec	Twp	Rng	County
4301931334	Kane Springs Fed 25-19-34-1	NWNE	34	25S	19E	Grand
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date	
D	14511	14506			6/1/2010	
Comments: Determined that Bottom hole location is in Participating area. Effective 6/1/2010. <div style="display: flex; justify-content: space-between;"> <i>CNCR</i> <i>BHL = NESE</i> <i>6/7/10</i> </div>						

Well 2

API Number	Well Name	QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date	
Comments:						

Well 3

API Number	Well Name	QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date	
Comments:						

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Stephanie Masters

Name (Please Print)

Stephanie Masters

Signature

Operations Technician

6/7/2010

Title

Date

RECEIVED
JUN 07 2010

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-53624
1. TYPE OF WELL Oil Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: FIDELITY E&P COMPANY		7. UNIT or CA AGREEMENT NAME: CANE CREEK
3. ADDRESS OF OPERATOR: 1801 California St. Ste 2500 , Denver, CO, 80202		8. WELL NAME and NUMBER: KANE SPRINGS FED 25-19-34-1
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0934 FNL 1678 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNE Section: 34 Township: 25.0S Range: 19.0E Meridian: S		9. API NUMBER: 43019313340000
PHONE NUMBER: 713 351-1968 Ext		9. FIELD and POOL or WILDCAT: BIG FLAT
COUNTY: GRAND		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 10/27/2014	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> CHANGE WELL NAME	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PLUG BACK	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> TUBING REPAIR	
	<input checked="" type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Produced water generated from this well is disposed of either at the Fidelity-operated Kane Springs 16-1 injection well or the commercial Danish Flats facility in Grand County, Utah.		
		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 29, 2014
NAME (PLEASE PRINT) Sandi Stocker		PHONE NUMBER 720 931-9637
SIGNATURE N/A		TITLE Engineering Tech
		DATE 10/27/2014

Effective Date: 3/1/2016

FORMER OPERATOR:	NEW OPERATOR:
Fidelity E&P Company N3155 1801 Californa Street, Suite 2500 Denver, CO 80202	Wesco Operating, Inc. N4030 PO Box 1650 Casper, WY 82602
CA Number(s):	Unit(s): Cane Creek Threemile

WELL INFORMATION:

Well Name	Sec	TWN	RNG	API	Entity	Mineral	Surface	Type	Status
See Attached List									

OPERATOR CHANGES DOCUMENTATION:

1. Sundry or legal documentation was received from the **FORMER** operator on: 4/12/2016
2. Sundry or legal documentation was received from the **NEW** operator on: 4/12/2016
3. New operator Division of Corporations Business Number: 8742016-0143

REVIEW:

1. Surface Agreement Sundry from **NEW** operator on Fee Surface wells received on: 4/12/2016
2. Receipt of Acceptance of Drilling Procedures for APD on: 4/12/2016
3. Reports current for Production/Disposition & Sundries: 4/19/2016
4. OPS/SI/TA well(s) reviewed for full cost bonding: 4/19/2016
5. UIC5 on all disposal/injection/storage well(s) approved on: 4/13/2016
6. Surface Facility(s) included in operator change: Blue Hills Gas Plant
Dead House Lateral Pipeline
Dubinky Booster Station
Long Canyon Facility
7. Inspections of PA state/fee well sites complete on (only upon operators request): N/A

NEW OPERATOR BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: UTB0000685
2. Indian well(s) covered by Bond Number: N/A
3. State/fee well(s) covered by Bond Number(s): RLB0016443

DATA ENTRY:

1. Well(s) update in the **OGIS** on: 4/21/2016 ✓
2. Entity Number(s) updated in **OGIS** on: 4/21/2016
3. Unit(s) operator number update in **OGIS** on: 4/21/2016
4. Surface Facilities update in **OGIS** on: 4/21/2016
5. State/Fee well(s) attached to bond(s) in **RBDMS** on: 4/21/2016
6. Surface Facilities update in **RBDMS** on: 4/21/2016

LEASE INTEREST OWNER NOTIFICATION:

1. The **NEW** operator of the Fee (Mineral) wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

COMMENTS:

From: Fidelity Exploration Production Company N3155

To: Wesco Operating, Inc. N4030

Effective: 3/1/2016

Well Name	Section	TWN	RNG	API Numner	Entity	Mineral	Surface	Type	Status	Unit
KANE SPRINGS 16-1	16	250S	180E	4301931341	11484	State	State	WD	A	CANE CREEK
CANE CREEK UNIT 2-2-25-18	2	250S	180E	4301950044		State	State	OW	APD	CANE CREEK
Cane Creek Unit 25-1-25-19	25	250S	190E	4301950048		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 6-1-25-19	6	250S	190E	4301950052		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 29-1-25-19	29	250S	190E	4301950053		Federal	Federal	OW	APD	CANE CREEK
Cane Creek 10-1-25-19	10	250S	190E	4301950054		Federal	Federal	OW	APD	
Cane Creek Unit 30-1-25-19	30	250S	190E	4301950055		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 19-2-26-20	19	260S	200E	4301950056		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 14-1-25-19	14	250S	190E	4301950057		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 2-3-25-18	2	250S	180E	4301950058		Federal	State	OW	APD	CANE CREEK
Cane Creek Unit 16-3-25-18	16	250S	180E	4301950059		Federal	State	OW	APD	CANE CREEK
Cane Creek Unit 19-1-25-19	19	250S	190E	4301950060		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 32-2-25-19	32	250S	190E	4301950061		State	State	OW	APD	CANE CREEK
Cane Creek Unit 17-1-25-19	17	250S	190E	4301950062		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 16-4-25-18	16	250S	180E	4301950063		Federal	State	OW	APD	CANE CREEK
Cane Creek Unit 2-4-25-18	2	250S	180E	4301950064		Federal	State	OW	APD	CANE CREEK
Cane Creek Unit 5-1-25-18	5	250S	180E	4301950065		Federal	Federal	OW	APD	CANE CREEK
8-2-26-20	8	260S	200E	4301950068		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 19-3-26-20	19	260S	200E	4301950069		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 21-1-25-19	21	250S	190E	4301950070		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 12-2-26-19	12	260S	190E	4301950071		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 26-4-25-19	26	250S	190E	4301950072		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 21-1-25-18	21	250S	180E	4301950073		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 9-1-25-18	9	250S	180E	4301950074		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 7-1-25-19	7	250S	190E	4301950075		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 5-2-25-18	5	250S	180E	4301950076		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 7-1-25-18	7	250S	180E	4301950077		Federal	Federal	OW	APD	CANE CREEK
Cane Creek Unit 13-1-25-18	13	250S	180E	4301950078		Federal	Federal	OW	APD	CANE CREEK
Three Mile Unti 12-3-29-21	12	290S	210E	4303750070		Federal	Federal	OW	APD	THREEMILE
Three Mile Unit 16-2-29-22	16	290S	220E	4303750071		Federal	State	OW	APD	THREEMILE
Cane Creek Unit 7-2-26-20	7	260S	200E	4301950051	19706	Federal	Federal	OW	OPS	CANE CREEK
THREEMILE 16-17	16	290S	220E	4303750003	17984	State	State	OW	OPS	THREEMILE
Three Mile Unit 12-2-29-21	12	290S	210E	4303750069	19646	Federal	Federal	OW	OPS	THREEMILE
KANE SPRINGS FED 27-1	27	250S	190E	4301931310	14505	Federal	Federal	OW	P	CANE CREEK
KANE SPRINGS FED 19-1A	19	260S	200E	4301931324	14505	Federal	Federal	OW	P	CANE CREEK
KANE SPRINGS FED 10-1	10	250S	180E	4301931331	14509	Federal	Federal	OW	P	CANE CREEK
KANE SPRINGS FED 25-19-34-1	34	250S	190E	4301931334	14505	Federal	Federal	OW	P	CANE CREEK
CANE CREEK 2-1	2	260S	190E	4301931396	14505	State	State	OW	P	CANE CREEK
CANE CREEK UNIT 12-1	12	260S	190E	4301950009	14505	Federal	Federal	OW	P	CANE CREEK
CANE CREEK UNIT 7-1	7	260S	200E	4301950010	18923	Federal	Federal	OW	P	CANE CREEK
CANE CREEK UNIT# 26-2	26	250S	190E	4301950011	14505	Federal	Federal	OW	P	CANE CREEK
CANE CREEK UNIT #18-1	18	260S	200E	4301950012	14505	Federal	Federal	OW	P	CANE CREEK
CANE CREEK U #13-1	13	260S	190E	4301950014	14505	Federal	Federal	OW	P	CANE CREEK
CANE CREEK UNIT 26-3	26	250S	190E	4301950019	14505	Federal	Federal	OW	P	CANE CREEK
CANE CREEK UNIT 28-2	28	250S	190E	4301950020	18681	Federal	Federal	OW	P	
Cane Creek Unit 17-1	17	260S	200E	4301950028	18980	Federal	Federal	OW	P	CANE CREEK
Cane Creek Unit 36-1	36	250S	190E	4301950030	14505	State	State	OW	P	CANE CREEK
Cane Creek Unit 36-2H	36	250S	190E	4301950033	14505	State	State	OW	P	CANE CREEK
Cane Creek Unit 24-2H	24	260S	190E	4301950034	19342	Federal	Federal	OW	P	CANE CREEK
Cane Creek Unit 36-3H	36	250S	190E	4301950035	19528	State	State	OW	P	CANE CREEK
CANE CREEK UNIT 2-1-25-18	2	250S	180E	4301950036	19343	Federal	State	OW	P	CANE CREEK
Cane Creek Unit 32-1-25-19	32	250S	190E	4301950037	19396	State	State	OW	P	
Cane Creek Unit 28-3	28	250S	190E	4301950045	19767	Federal	Federal	OW	P	CANE CREEK
Cane Creek 32-1-25-20	32	250S	200E	4301950049	19588	State	State	OW	P	
HATCH POINT 1	14	290S	210E	4303731658	11356	Federal	Federal	OW	P	
THREEMILE 43-18H	18	290S	220E	4303731857	17276	Federal	Federal	OW	P	
LONG CANYON 1	9	260S	200E	4301915925	674	Federal	Federal	OW	S	
CANE CREEK 1-1	1	260S	190E	4301931446	14505	Federal	Federal	OW	S	CANE CREEK

From: Fidelity Exploration Production Company N3155

To: Wesco Operating, Inc. N4030

Effective: 3/1/2016

CANE CREEK 24-1	24	260S	190E	4301931447	14505	Federal	Federal	OW	S	CANE CREEK
CANE CREEK 8-1	8	260S	200E	4301931449	16464	Federal	Federal	OW	S	CANE CREEK
Cane Creek Unit 18-2	18	260S	200E	4301950027	14505	Federal	Federal	OW	S	CANE CREEK
Cane Creek Unit 17-2	17	260S	200E	4301950032	14505	Federal	Federal	OW	S	CANE CREEK
Cane Creek 36-1-25-18	36	250S	180E	4301950038	19440	State	State	OW	S	
CHEVRON FED 1	24	290S	230E	4303730005	975	Federal	Federal	OW	S	
Threemile 12-7	12	290S	210E	4303750001	17837	Federal	Federal	OW	S	THREEMILE
LA SAL 29-28	29	290S	230E	4303750002	17920	Federal	Federal	OW	S	
CANE CREEK UNIT 16-2-25-18	16	250S	180E	4301950046	19512	State	State	OW	TA	CANE CREEK

WESCO OPERATING, INC.

O I L & G A S O P E R A T I O N S

RECEIVED

APR 12 2016

DIV. OF OIL, GAS & MINING

April 8, 2016

John Rogers
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210 Box 145801
Salt Lake City, Utah 84114

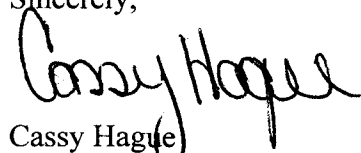
RE: Change of Operator

- A) Wells
- B) APD'S
- C) Dubinky Booster Station
- D) Blue Hills Gas Plant
- E) Dead Horse Lateral Pipeline
- F) Authority to Inject
- Sundry Notices

Dear John Rodgers,

Please find enclosed the following documents from Fidelity Exploration & Production Company to Wesco Operating, Inc for your further handing. If you have any further questions please contact us..

Sincerely,



Cassy Hague
307-577-5337

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: See Attached Exhibit
2. NAME OF OPERATOR: Fidelity Exploration & Production Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: See Attached Exhibit
3. ADDRESS OF OPERATOR: 1801 California St., STE 250 CITY Denver STATE CO ZIP 80202		7. UNIT or CA AGREEMENT NAME: See Attached Exhibit
4. LOCATION OF WELL FOOTAGES AT SURFACE: See attached exhibit for all wells and details QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: _____		8. WELL NAME and NUMBER: See Attached Exhibit
PHONE NUMBER: (303) 893-3133		9. API NUMBER:
COUNTY: Grand		10. FIELD AND POOL, OR WILDCAT: See Attached Exhibit
STATE: UTAH		

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: 3/1/2016	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

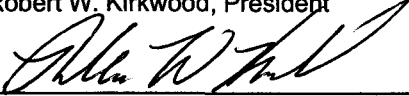
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

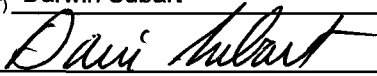
Effective March 1, 2016, Fidelity Exploration & Production Company (Operator Number N1355) resigns as Operator of the wells listed on the attached exhibit and Wesco Operating, Inc. has been designated as successor Operator.

Wesco Operating, Inc.
P.O. Box 1650
Casper, Wyoming 82602
Phone 307-265-5178

Fidelity Exploration & Production Company
1801 California Street, Suite 2500
Denver, Colorado 80202
Phone 303-893-3133

Wesco Operating, Inc.
Robert W. Kirkwood, President


Signature

NAME (PLEASE PRINT) Darwin Subart	TITLE Chief Financial Officer
SIGNATURE 	DATE 4/4/2016

(This space for State use only) BLM:

APPROVED

APR 21 2016

DIV. OIL GAS & MINING
BY: Rachel Medina

Fidelity Exploration & Production Company Paradox Well & APD List

<u>Entity #</u>	<u>API #</u>	<u>Permitted Well Name</u>	<u>AKA Well Name</u>	<u>Township</u>	<u>Range</u>	<u>Section(s)</u>	<u>County</u>	<u>State</u>	<u>Mineral</u>	<u>Surface</u>	<u>Well Type</u>	<u>Well Status</u>
14506	4301931310	KANE SPRINGS FED 27-1	KANE SPRINGS FED 27-1-25-19	25S	19E	27	GRAND	UT	Federal	Federal	OW	P✓
14505	4301931324	KANE SPRINGS FED 19-1A	KANE SPRINGS FED 19-1A-ST-26-20	26S	20E	19	GRAND	UT	Federal	Federal	OW	P✓
14509	4301931331	KANE SPRINGS FED 10-1	KANE SPRINGS FED 10-1-25-18	25S	18E	10	GRAND	UT	Federal	Federal	OW	P✓
14506	4301931334	KANE SPRINGS FED 25-19-34-1	KANE SPRINGS FED 25-19-34-1	25S	19E	34	GRAND	UT	Federal	Federal	OW	P✓
	4301931341	KANE SPRINGS 16-1-25-18	Disposal Well	25S	18E	16	GRAND	UT	State	State	SWD	P✓
14505	4301931396	CANE CREEK 2-1	CANE CREEK UNIT 2-1-26-19	26S	19E	2	GRAND	UT	State	State	OW	P✓
14505	4301931446	CANE CREEK 1-1	CANE CREEK UNIT 1-1-26-19	26S	19E	1	GRAND	UT	Federal	Federal	OW	P✓
14505	4301950009	CANE CREEK UNIT 12-1	CANE CREEK UNIT 12-1-26-19	26S	19E	12	GRAND	UT	Federal	Federal	OW	P✓
18923	4301950010	CANE CREEK UNIT 7-1	CANE CREEK UNIT 7-1-26-20	26S	20E	7	GRAND	UT	Federal	Federal	OW	P✓
14506	4301950011	CANE CREEK UNIT# 26-2	CANE CREEK UNIT 26-2-25-19	25S	19E	26	GRAND	UT	Federal	Federal	OW	P✓
14505	4301950012	CANE CREEK UNIT #18-1	CANE CREEK UNIT 18-1-26-20	26S	20E	18	GRAND	UT	Federal	Federal	OW	P✓
14505	4301950014	CANE CREEK U #13-1	CANE CREEK UNIT 13-1-26-19	26S	19E	13	GRAND	UT	Federal	Federal	OW	P✓
14506	4301950019	CANE CREEK UNIT 26-3	CANE CREEK UNIT 26-3-25-19	25S	19E	26	GRAND	UT	Federal	Federal	OW	P✓
18681	4301950020	CANE CREEK UNIT 28-2	CANE CREEK UNIT 28-2-25-19	25S	19E	28	GRAND	UT	Federal	Federal	OW	P✓
14505	4301950027	Cane Creek Unit 18-2	CANE CREEK UNIT 18-2-26-20	26S	20E	18	GRAND	UT	Federal	Federal	OW	P✓
18980	4301950028	Cane Creek Unit 17-1	CANE CREEK UNIT 17-1-26-20	26S	20E	17	GRAND	UT	Federal	Federal	OW	P✓
19057	4301950030	Cane Creek Unit 36-1	CANE CREEK UNIT 36-1-25-19	25S	19E	36	GRAND	UT	State	State	OW	P✓
14505	4301950032	Cane Creek Unit 17-2	CANE CREEK UNIT 17-2-26-20	26S	20E	17	GRAND	UT	Federal	Federal	OW	P✓
19527	4301950033	Cane Creek Unit 36-2H	CANE CREEK UNIT 36-2H-25-19	25S	19E	36	GRAND	UT	State	State	OW	P✓
19342	4301950034	Cane Creek Unit 24-2H	CANE CREEK UNIT 24-2-26-19	26S	19E	24	GRAND	UT	Federal	Federal	OW	P✓
19528	4301950035	Cane Creek Unit 36-3H	CANE CREEK UNIT 36-3H-25-19	25S	19E	36	GRAND	UT	State	State	OW	P✓
19396	4301950037	Cane Creek Unit 32-1-25-19	CANE CREEK UNIT 32-1-25-19	25S	19E	32	GRAND	UT	State	State	OW	P✓
19767	4301950045	Cane Creek Unit 28-3	CANE CREEK UNIT 28-3-25-19	26S	19E	28	GRAND	UT	Federal	Federal	OW	P✓
19588	4301950049	Cane Creek 32-1-25-20	CANE CREEK 32-1-25-20	25S	20E	32	GRAND	UT	State	State	OW	P✓
11356	4303731658	HATCH POINT 1	HATCH POINT FEDERAL 1	29S	21E	14	SAN JUAN	UT	Federal	Federal	OW	P✓ 26-P
17276	4303731857	THREEMILE 43-18H	THREEMILE UNIT 43-18H-29-22	29S	22E	18	SAN JUAN	UT	Federal	Federal	OW	P✓
19706	4301950051	Cane Creek Unit 7-2-26-20	CANE CREEK UNIT 7-2-26-20	26S	20E	7	GRAND	UT	Federal	Federal	OW	OPS✓
17984	4303750003	THREEMILE 16-17	THREEMILE UNIT 16-17-29-22	29S	22E	16	SAN JUAN	UT	State	State	OW	OPS✓ 3 OPS
19646	4303750069	Three Mile Unit 12-2-29-21	THREE MILE UNIT 12-2-29-21	29S	21E	12	SAN JUAN	UT	Federal	Federal	OW	OPS✓
19343	4301950036	CANE CREEK UNIT 2-1-25-18	CANE CREEK UNIT 2-1-25-18	25S	18E	2	GRAND	UT	Federal	State	OW	TA✓ 2TA
19512	4301950046	CANE CREEK UNIT 16-2-25-18	CANE CREEK UNIT 16-2-25-18	25S	18E	16	GRAND	UT	State	State	OW	TA✓
674	4301915925	LONG CANYON 1	LONG CANYON 1	26S	20E	9	GRAND	UT	Federal	Federal	OW	S✓
14505	4301931447	CANE CREEK 24-1	CANE CREEK UNIT 24-1-26-19	26S	19E	24	GRAND	UT	Federal	Federal	OW	S✓
16464	4301931449	CANE CREEK 8-1	CANE CREEK UNIT 8-1-26-20	26S	20E	8	GRAND	UT	Federal	Federal	OW	S✓
19440	4301950038	Cane Creek 36-1-25-18	CANE CREEK 36-1-25-18	25S	18E	36	GRAND	UT	State	State	OW	S✓
975	4303730005	CHEVRON FED 1	CHEVRON FEDERAL 1H	29S	23E	24	SAN JUAN	UT	Federal	Federal	OW	S✓ 7-S
17837	4303750001	Threemile 12-7	THREEMILE UNIT 12-7-29-21	29S	21E	12	SAN JUAN	UT	Federal	Federal	OW	S✓
17920	4303750002	LA SAL 29-28	LA SAL UNIT 29-28-29-23	29S	23E	29	SAN JUAN	UT	Federal	Federal	OW	S✓
	4301950044	CANE CREEK UNIT 2-2-25-18		250S	180E	2	GRAND	UT	State	State	OW	APD✓
	4301950048	Cane Creek Unit 25-1-25-19		250S	190E	25	GRAND	UT	Federal	Federal	OW	APD✓
	4301950052	Cane Creek Unit 6-1-25-19		250S	190E	6	GRAND	UT	Federal	Federal	OW	APD✓
	4301950053	Cane Creek Unit 29-1-25-19		250S	190E	29	GRAND	UT	Federal	Federal	OW	APD✓ 2APD
	4301950054	Cane Creek 10-1-25-19		250S	190E	10	GRAND	UT	Federal	Federal	OW	APD✓
	4301950055	Cane Creek Unit 30-1-25-19		250S	190E	30	GRAND	UT	Federal	Federal	OW	APD✓
	4301950056	Cane Creek Unit 19-2-26-20		260S	200E	19	GRAND	UT	Federal	Federal	OW	APD✓

<u>Entity #</u>	<u>API #</u>	<u>Permitted Well Name</u>	<u>AKA Well Name</u>	<u>Township</u>	<u>Range</u>	<u>Section(s)</u>	<u>County</u>	<u>State</u>	<u>Mineral</u>	<u>Surface</u>	<u>Well Type</u>	<u>Well Status</u>
4301950057		Cane Creek Unit 14-1-25-19		250S	190E	14	GRAND	UT	Federal	Federal	OW	APD ✓
4301950058		Cane Creek Unit 2-3-25-18		250S	180E	2	GRAND	UT	Federal	State	OW	APD ✓
4301950059		Cane Creek Unit 16-3-25-18		250S	180E	16	GRAND	UT	Federal	State	OW	APD ✓
4301950060		Cane Creek Unit 19-1-25-19		250S	190E	19	GRAND	UT	Federal	Federal	OW	APD ✓
4301950061		Cane Creek Unit 32-2-25-19		250S	190E	32	GRAND	UT	State	State	OW	APD ✓
4301950062		Cane Creek Unit 17-1-25-19		250S	190E	17	GRAND	UT	Federal	Federal	OW	APD ✓
4301950063		Cane Creek Unit 16-4-25-18		250S	180E	16	GRAND	UT	Federal	State	OW	APD ✓
4301950064		Cane Creek Unit 2-4-25-18		250S	180E	2	GRAND	UT	Federal	State	OW	APD ✓
4301950065		Cane Creek Unit 5-1-25-18		250S	180E	5	GRAND	UT	Federal	Federal	OW	APD ✓
4301950068		8-2-26-20		260S	200E	8	GRAND	UT	Federal	Federal	OW	APD ✓
4301950069		Cane Creek Unit 19-3-26-20		260S	200E	19	GRAND	UT	Federal	Federal	OW	APD ✓
4301950070		Cane Creek Unit 21-1-25-19		250S	190E	21	GRAND	UT	Federal	Federal	OW	APD ✓
4301950071		Cane Creek Unit 12-2-26-19		260S	190E	12	GRAND	UT	Federal	Federal	OW	APD ✓
4301950072		Cane Creek Unit 26-4-25-19		250S	190E	26	GRAND	UT	Federal	Federal	OW	APD ✓
4301950073		Cane Creek Unit 21-1-25-18		250S	180E	21	GRAND	UT	Federal	Federal	OW	APD ✓
4301950074		Cane Creek Unit 9-1-25-18		250S	180E	9	GRAND	UT	Federal	Federal	OW	APD ✓
4301950075		Cane Creek Unit 7-1-25-19		250S	190E	7	GRAND	UT	Federal	Federal	OW	APD ✓
4301950076		Cane Creek Unit 5-2-25-18		250S	180E	5	GRAND	UT	Federal	Federal	OW	APD ✓
4301950077		Cane Creek Unit 7-1-25-18		250S	180E	7	GRAND	UT	Federal	Federal	OW	APD ✓
4301950078		Cane Creek Unit 13-1-25-18		250S	180E	13	GRAND	UT	Federal	Federal	OW	APD ✓
4303750070		Three Mile Unti 12-3-29-21		290S	210E	12	SAN JUAN	UT	Federal	Federal	OW	APD ✓
4303750071		Three Mile Unit 16-2-29-22		290S	220E	16	SAN JUAN	UT	Federal	State	OW	APD ✓
4301950036		CANE CREEK UNIT 2-1-25-18H2		25S	18E	2	GRAND	UT	Federal	State	OW	APD ✓

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Request to Transfer Application or Permit to Drill

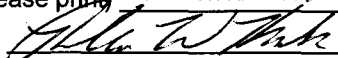
(This form should accompany a Sundry Notice, Form 9, requesting APD transfer)

Well name:	See attached well list
API number:	
Location:	Qtr-Qtr: Section: Township: Range:
Company that filed original application:	Fidelity Exploration & Production Company
Date original permit was issued:	
Company that permit was issued to:	Fidelity Exploration & Production Company

Check one	Desired Action:
	Transfer pending (unapproved) Application for Permit to Drill to new operator
	The undersigned as owner with legal rights to drill on the property, hereby verifies that the information as submitted in the pending Application for Permit to Drill, remains valid and does not require revision. The new owner of the application accepts and agrees to the information and procedures as stated in the application.
<input checked="" type="checkbox"/>	Transfer approved Application for Permit to Drill to new operator
	The undersigned as owner with legal rights to drill on the property as permitted, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.	Yes	No
If located on private land, has the ownership changed?		<input checked="" type="checkbox"/>
<input type="checkbox"/> If so, has the surface agreement been updated?		
Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?		<input checked="" type="checkbox"/>
Have there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?		<input checked="" type="checkbox"/>
Have there been any changes to the access route including ownership or right-of-way, which could affect the proposed location?		<input checked="" type="checkbox"/>
Has the approved source of water for drilling changed?		<input checked="" type="checkbox"/>
Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?		<input checked="" type="checkbox"/>
Is bonding still in place, which covers this proposed well? Bond No. _____		

Any desired or necessary changes to either a pending or approved Application for Permit to Drill that is being transferred, should be filed on a Sundry Notice, Form 9, or amended Application for Permit to Drill, Form 3, as appropriate, with necessary supporting information as required.

Name (please print) Robert W. Kirkwood Title President
Signature  Date 4/4/10
Representing (company name) Wesco Operating, Inc.

The person signing this form must have legal authority to represent the company or individual(s) to be listed as the new operator on the Application for Permit to Drill.

Fidelity Exploration & Production Company Paradox APD List

<u>Date Issued</u>	<u>API #</u>	<u>Permitted Well Name</u>	<u>Township</u>	<u>Range</u>	<u>Section(s)</u>	<u>County</u>	<u>State</u>	<u>Mineral</u>	<u>Surface</u>	<u>Well Type</u>	<u>Well Status</u>
3/4/2014	4301950044	CANE CREEK UNIT 2-2-25-18	250S	180E	2	GRAND	UT	State	State	OW	APD
2/19/2015	4301950048	Cane Creek Unit 25-1-25-19	250S	190E	25	GRAND	UT	Federal	Federal	OW	APD
6/26/2014	4301950052	Cane Creek Unit 6-1-25-19	250S	190E	6	GRAND	UT	Federal	Federal	OW	APD
6/26/2014	4301950053	Cane Creek Unit 29-1-25-19	250S	190E	29	GRAND	UT	Federal	Federal	OW	APD
6/26/2014	4301950054	Cane Creek 10-1-25-19	250S	190E	10	GRAND	UT	Federal	Federal	OW	APD
6/26/2014	4301950055	Cane Creek Unit 30-1-25-19	250S	190E	30	GRAND	UT	Federal	Federal	OW	APD
6/26/2014	4301950056	Cane Creek Unit 19-2-26-20	260S	200E	19	GRAND	UT	Federal	Federal	OW	APD
6/26/2014	4301950057	Cane Creek Unit 14-1-25-19	250S	190E	14	GRAND	UT	Federal	Federal	OW	APD
7/21/2014	4301950058	Cane Creek Unit 2-3-25-18	250S	180E	2	GRAND	UT	Federal	State	OW	APD
8/6/2014	4301950059	Cane Creek Unit 16-3-25-18	250S	180E	16	GRAND	UT	Federal	State	OW	APD
8/6/2014	4301950060	Cane Creek Unit 19-1-25-19	250S	190E	19	GRAND	UT	Federal	Federal	OW	APD
9/22/2014	4301950061	Cane Creek Unit 32-2-25-19	250S	190E	32	GRAND	UT	State	State	OW	APD
7/30/2014	4301950062	Cane Creek Unit 17-1-25-19	250S	190E	17	GRAND	UT	Federal	Federal	OW	APD
8/12/2014	4301950063	Cane Creek Unit 16-4-25-18	250S	180E	16	GRAND	UT	Federal	State	OW	APD
9/24/2014	4301950064	Cane Creek Unit 2-4-25-18	250S	180E	2	GRAND	UT	Federal	State	OW	APD
9/2/2014	4301950065	Cane Creek Unit 5-1-25-18	250S	180E	5	GRAND	UT	Federal	Federal	OW	APD
11/25/2014	4301950068	8-2-26-20	260S	200E	8	GRAND	UT	Federal	Federal	OW	APD
12/19/2014	4301950069	Cane Creek Unit 19-3-26-20	260S	200E	19	GRAND	UT	Federal	Federal	OW	APD
1/14/2015	4301950070	Cane Creek Unit 21-1-25-19	250S	190E	21	GRAND	UT	Federal	Federal	OW	APD
1/13/2015	4301950071	Cane Creek Unit 12-2-26-19	260S	190E	12	GRAND	UT	Federal	Federal	OW	APD
1/13/2015	4301950072	Cane Creek Unit 26-4-25-19	250S	190E	26	GRAND	UT	Federal	Federal	OW	APD
1/14/2015	4301950073	Cane Creek Unit 21-1-25-18	250S	180E	21	GRAND	UT	Federal	Federal	OW	APD
1/20/2015	4301950074	Cane Creek Unit 9-1-25-18	250S	180E	9	GRAND	UT	Federal	Federal	OW	APD
1/14/2015	4301950075	Cane Creek Unit 7-1-25-19	250S	190E	7	GRAND	UT	Federal	Federal	OW	APD
1/20/2015	4301950076	Cane Creek Unit 5-2-25-18	250S	180E	5	GRAND	UT	Federal	Federal	OW	APD
1/14/2015	4301950077	Cane Creek Unit 7-1-25-18	250S	180E	7	GRAND	UT	Federal	Federal	OW	APD
1/14/2015	4301950078	Cane Creek Unit 13-1-25-18	250S	180E	13	GRAND	UT	Federal	Federal	OW	APD
7/8/2014	4303750070	Three Mile Unti 12-3-29-21	290S	210E	12	SAN JUAN	UT	Federal	Federal	OW	APD
10/2/2014	4303750071	Three Mile Unit 16-2-29-22	290S	220E	16	SAN JUAN	UT	Federal	State	OW	APD
12/16/2014	4301950036	Cane Creek Unit 2-1-25-18 H2	25S	18E	2	GRAND	UT	Federal	State	OW	APD

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Blue Hills Gas Plant</u>		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-90108
2. NAME OF OPERATOR: Fidelity Exploration & Production Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 1801 California St., STE 250 CITY <u>Denver</u> STATE <u>CO</u> ZIP <u>80202</u>		7. UNIT or CA AGREEMENT NAME:
PHONE NUMBER: (303) 893-3133		8. WELL NAME and NUMBER: Blue Hills Gas Plant
4. LOCATION OF WELL FOOTAGES AT SURFACE:		9. API NUMBER:
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:		10. FIELD AND POOL, OR WILDCAT:
COUNTY: <u>Grand</u>		STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>3/1/2016</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective March 1, 2016, Fidelity Exploration & Production Company (Operator Number N1355) resigns as Operator of the Blue Hills Gas Plant located in T23S-R19E, Sections 20, 29. Wesco Operating, Inc. has been named as successor Operator.

Wesco Operating, Inc.
P.O Box 1650
Casper, Wyoming 82602
Phone 307-265-5178

Fidelity Exploration & Production Company
1801 California Street, Suite 2500
Denver, Colorado 80202
Phone 303-893-3133

Wesco Operating, Inc.
Robert W. Kirkwood, President

Signature Robert W. Kirkwood

NAME (PLEASE PRINT) <u>Darwin Subart</u>	TITLE <u>Chief Financial Officer</u>
SIGNATURE <u>Darwin Subart</u>	DATE <u>4/4/2016</u>

(This space for State use only)

APPROVED

APR 21 2016

DIV. OIL GAS & MINING
BY: Rachael Medina

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Compressor Booster Station</u>		5. LEASE DESIGNATION AND SERIAL NUMBER:
2. NAME OF OPERATOR: <u>Fidelity Exploration & Production Company</u>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: <u>1801 California St., STE 250</u> CITY <u>Denver</u> STATE <u>CO</u> ZIP <u>80202</u>		7. UNIT or CA AGREEMENT NAME:
PHONE NUMBER: <u>(303) 893-3133</u>		8. WELL NAME and NUMBER: <u>Dubinky Booster Station</u>
4. LOCATION OF WELL FOOTAGES AT SURFACE:		9. API NUMBER:
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:		10. FIELD AND POOL, OR WILDCAT:
COUNTY: <u>Grand</u>		
STATE: <u>UTAH</u>		

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>3/1/2016</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	


12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

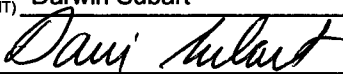
Effective March 1, 2016, Fidelity Exploration & Production Company (Operator Number N1355) resigns as Operator of the Dubinky Booster Station located along Dubinky Road, approximately 18 miles northwest of Moab, 599142 E 4280872 N UTM Zone 12, NAD83. Wesco Operating, Inc. has been named as successor Operator.

Wesco Operating, Inc.
P.O. Box 1650
Casper, Wyoming 82602
Phone 307-265-5178

Fidelity Exploration & Production Company
1801 California Street, Suite 2500
Denver, Colorado 80202
Phone 303-893-3133

Wesco Operating, Inc.
Robert W. Kirkwood, President

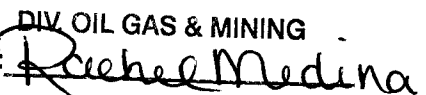

Signature

NAME (PLEASE PRINT) <u>Darwin Subart</u>	TITLE <u>Chief Financial Officer</u>
SIGNATURE 	DATE <u>4/4/2016</u>

(This space for State use only)

APPROVED

APR 21 2016

DIV OIL GAS & MINING
BY: 

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

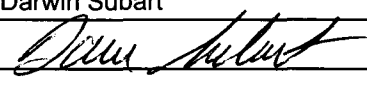
UIC FORM 5

TRANSFER OF AUTHORITY TO INJECT


Well Name and Number Kane Springs 16-1	API Number 4301931341
Location of Well Footage : 960' FSL 1960' FWL County : Grand QQ, Section, Township, Range: SESW 16 25 18 State : UTAH	Field or Unit Name Cane Creek Lease Designation and Number ML-44333

EFFECTIVE DATE OF TRANSFER: 3/1/2016

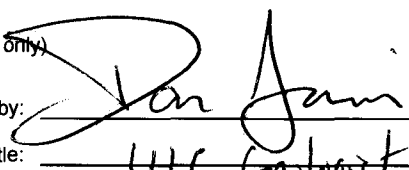
CURRENT OPERATOR

Company: <u>Fidelity Exploration & Production Company</u>	Name: <u>Darwin Subart</u>
Address: <u>1801 California Street, Suite 2500</u>	Signature: <u></u>
city <u>Denver</u> state <u>CO</u> zip <u>80202</u>	Title: <u>Chief Financial Officer</u>
Phone: <u>(303) 893-3133</u>	Date: <u>4/4/2016</u>
Comments:	

NEW OPERATOR

Company: <u>Wesco Operating, Inc.</u>	Name: <u>Robert W. Kirkwood</u>
Address: <u>P.O. Box 1650</u>	Signature: <u></u>
city <u>Casper</u> state <u>WY</u> zip <u>82602</u>	Title: <u>President</u>
Phone: <u>(307) 265-5178</u>	Date: <u>4/7/16</u>
Comments:	

(This space for State use only)

Transfer approved by: 
Title: UIC Geologist

Approval Date: 4/13/16

Comments: